

APPLICATIONS FOR ADMISSION AND FOR TRANSFER

The Constitution provides that the Board of Direction shall elect or reject all applicants for *Admission* or for *Transfer*, and, in order to determine justly the eligibility of each candidate, the Board must depend largely upon the Membership for information.

This list is issued to members in every grade for the purpose of securing all such available information, and every member is urged to scan carefully each monthly list of candidates and to furnish the Board with data in regard to any applicant which may aid in determining his eligibility. It is the *Duty* of all *Members* to the *Profession* to assist the Board in this manner.

It is especially urged, in communications concerning applicants, that errors in the record be pointed out and a *Definite Recommendation as to the Proper Grading in Each Case* be given, inasmuch as the grading must be based upon the opinions of those who know the applicant personally, as well as upon the nature and extent of his professional experience. If facts exist derogatory to the personal character or to the professional reputation of an applicant, they should be promptly communicated to the Board. *Communications Relating to Applicants are considered by the Board as Strictly Confidential.*

The Board of Direction will not consider the applications herein contained from residents of North America until the expiration of thirty (30) days, and from non-residents of North America until the expiration of ninety (90) days from August 1, 1928.

MINIMUM REQUIREMENTS FOR ADMISSION

| Grade | General Requirement | Age | Length of Active Practice | Responsible charge of work |
|------------------|---|-----------|---------------------------|----------------------------|
| Member | Qualified to design as well as to direct work | 32 years | 12 years* | 5 years |
| Associate Member | Qualified to direct work | 25 years | 8 years* | 1 year |
| Junior | Qualified for sub-professional work | 18 years† | 4 years* | |
| Affiliate | Qualified by scientific acquirements or practical experience to co-operate with engineers | | | |
| Fellow | Contributor to the permanent funds of the Society | | | |

* Graduation from a school of engineering of recognized reputation is equivalent to 4 years' active practice.

† Membership ceases at age of 32 unless transferred to higher grade.

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| ROSS, ALBERT H. | Decatur, Ill. | 230 | TYK, GEORGE S. | Cicero, Ill. | 242 |
| RUTLEDGE, CHARLIE E. | Seattle, Wash. | 230 | TYRRELL, FRANK C. | Denver, Colo. | 242 |
| RUTTER, EDWARD J. | Penn Wynne, Pa. | 231 | VALENTIUS, HERMAN P. | Clifton, N. J. | 242 |
| SACRA, CHARLES | Denver, Colo. | 231 | VALIENTE, MANUEL P. | Santiago de Cuba, Cuba | 243 |
| SAGEHORN, ERNEST H. | Beverly Hills, Cal. | 231 | VANDERHOUT, WILLIAM | Elizabeth, N. J. | 243 |
| SAILER, ROBERT | St. Louis, Mo. | 268 | VAN INGEN, DANIEL K., JR. | Newark, N. J. | 243 |
| SANTILLI, FRANK | New York City | 231 | VAYDA, EUGENE | New York City | 243 |
| SANTOS, TIRSO N., JR. | Cambridge, Mass. | 232 | VEEDER, HERMAN G., JR. | Bristol, R. I. | 243 |
| SASSO, MAURICE | Los Angeles, Cal. | 232 | VOGT, FREDRIK | Denver, Colo. | 243 |
| SAVIGNY, HARRY A. | Trout Creek, Mich. | 232 | VON FABRIC, ROMAN | Newark, N. J. | 261 |
| SAWYER, RALPH A. | Albany, N. Y. | 232 | WAGNER, ELMER C. L. | Jefferson City, Mo. | 262 |
| SAWYER, WILLIAM L. | Decatur, Ill. | 232 | WAIDELICH, ALFRED T. | Philadelphia, Pa. | 244 |
| SCHIED, LEE E. | Dayton, Ohio | 232 | WALLENIUS, JOHN W. | Springfield, Mass. | 244 |
| SCHELBE, THOMAS G. | Yellow Springs, Ohio | 232 | WARDEN, THOMAS B. | Houston, Tex. | 244 |
| SCHMEDICKE, F. C. | Baltimore, Md. | 232 | WARNOCK, JACOB E. | Chattanooga, Tenn. | 244 |
| SCHNEIDER, FLOYD E. G. P. | Gary, Ind. | 232 | WATERHOUSE, CHARLES E. | Burlington, Iowa | 244 |
| SCHOLER, EBEN E. | Topeka, Kans. | 233 | WATT, JAMES H. | Downers Grove, Ill. | 245 |
| SCHOPPE, RAY L. | Washington, D. C. | 259 | WEBB, STAFFORD R. | Greensboro, N. C. | 262 |
| SCHREINER, NORMAN G. | Philadelphia, Pa. | 233 | WEINBERG, HYMAN | New York City | 245 |
| SCHROEDER, CHARLES W. E. | New York City | 233 | WEST, RANDOLPH C. | Houston, Tex. | 269 |
| SCHULTZ, WALTER A. | Eldora, Iowa | 233 | WESTBY, SIGFRIED H. A. | Elgin, Ill. | 245 |
| SCHWORM, FRED G. | Philadelphia, Pa. | 259 | WHEATLEY, WILLIAM G. | Mandi State, India | 245 |
| SEEMANN, ERNEST W. | Duluth, Minn. | 233 | WHITAKER, FRANK O. | Oak Ridge, N. C. | 245 |
| SHATTUCK, LUCIEN H. | Wichita Falls, Tex. | 233 | WICKS, CHARLES H. | Mt. Gilead, Ohio | 245 |
| SHERWOOD, EARL J. | Buffalo, N. Y. | 234 | WILDER, BURL A. | North Pelham, N. Y. | 245 |
| SHIMKIN, BORIS M. | San Francisco, Cal. | 234 | WILLIAMS, BENJAMIN F. | Austin, Tex. | 263 |
| SIMPSON, AUGUSTUS H. | New York City | 234 | WILLIAMS, CHARLES W. | New York City | 246 |
| SIMPSON, BURR H. | Buckhannon, W. Va. | 260 | WILLIAMS, EDWIN O. | Evanston, Ill. | 246 |
| SINCLAIR, RUSSELL B. | Johnson, Vt. | 234 | WILLIS, EDWARD A. | Washington, D. C. | 246 |
| SISTI, BRUNO DE | New York City | 234 | WILLIS, ROBERT A. | St. Louis, Mo. | 246 |
| SJOBERG, HAROLD O. | Oakland, Cal. | 235 | WILMORE, CARLTON A. | Birmingham, Ala. | 247 |
| SMITH, BERNARD J. | Elizabeth, N. J. | 235 | WILSON, SAMUEL A. | Leetsdale, Pa. | 247 |
| SMITH, HERBERT C. | Drexel Hill, Pa. | 235 | WOJDYGO, JOSEPH M. | Chicago, Ill. | 247 |
| SMITH, ORVILLE A. | San Marino, Cal. | 235 | WOOD, JEROME W. | Niles, Mich. | 247 |
| SOGA, SUSUMU | Urbana, Ill. | 236 | WOODWARD, RICHARD M. | Philadelphia, Pa. | 247 |
| SPATHELF, DAVID E., JR. | St. Louis, Mo. | 236 | WOODWORTH, KINGSLEY B. | Springfield, Mass. | 247 |
| SPENCER, RALPH W. | Big Creek, Cal. | 236 | WORLEY, STEWART E. | Bastrop, La. | 247 |
| SPEHLING, ROBERT S. | New York City | 236 | WORRALL, ARTHUR R. | Troy, N. Y. | 247 |
| STADTFELD, N. T. F. | Queens Village, N. Y. | 260 | WREDE, FREDERICK W., JR. | Hoboken, N. J. | 248 |
| STEALY, KIRK H. | Colo. Springs, Colo. | 236 | WURAFFIC, JOSEPH | Providence, R. I. | 248 |
| STEARN, PHILIP B. | Greenfield, Mass. | 237 | WYLIE, PAUL E. | Los Angeles, Cal. | 263 |
| STEINFELD, ALEXANDER | Bellmore, N. Y. | 237 | ZWISSLER, JOHN A. | W. Lafayette, Ind. | 248 |

The fact that applicants give the names of certain members as references does not necessarily mean that such members endorse.

The number in the center above each record indicates the serial number of the applicant for the current year, and that at the left the district in which he resides.

The abbreviations in *Italics* represent, respectively, *TT*, Total Time; *SP*, Sub-Professional Work; *P*, Professional Work; *RC*, Responsible Charge; *D*, Design. The figure for Total Time is determined by adding one-half the time spent in Sub-Professional Work to the time spent in Professional Work. The figures showing the amount of time spent in Responsible Charge and on Design are the estimate of the Applicant. The allowance of four years for graduation and of one-half of a year for each academic year successfully completed in an engineering college without graduation is included in Total Time and Professional Work.

FOR ADMISSION

621

(11) ALBERS, JOHN CLARENCE, City Hall, Beverly Hills, Cal. (Age 38. Born Philadelphia, Pa.) 1909 to 1912 Rodman and Transitman, Philadelphia (Pa.) Rapid Transit Co. *TT 1.5: SP 1.5*. 1913 to 1915 Transitman and Chf. of Party on valuation surveys, Wabash-Pittsburgh Terminal Ry. *TT 2: P 2: RC 2*. 1915 to 1916 Asst. Engr. on surveys and in charge of construction of ore yards, Nevada Northern Ry. Co. *TT 1: P 1: RC 1*. 1916 to 1917 leasing mining properties in Nevada; private work. *TT 1: P 1: RC 1*. 1917 to 1919 Mine Surveyor and Assayer, Ellamar (Alaska) Min. Co. *TT 2: P 2: RC 1*. 1919 to 1921 Mine Surveyor, Assayer and later Supt., Bishop Creek Milling Co., Bishop, Cal. *TT 2: P 2: RC 1*. May 1922 to 1923 Mine Surveyor and Engr., Casa Diablo Mine, Bishop. *TT 0.5: P 0.5: RC 0.5*. 1923 to date subdivision work, Rodeo Land & Water Co., and City Engr. and Supt. of Streets and Sewers, Beverly Hills, Cal. *TT 5: P 5: RC 5*. *TT 15: SP 1.5: P 13.5: RC 11.5*. Refers to R. L. Anderson, J. W. Cleland, B. F. Dupuy, G. W. Jones, J. M. Kemmerer, W. T. Knowlton, W. D. Larrabee, R. V. Orbison, A. K. Warren.

622

(1) ALEXANDER, BERESFORD MORDRED, 437 Manhattan Ave., New York City. (Age 31. Born Jamaica, British West Indies.) 1928 B. S. in C. E., Cooper Union. *TT 4: P 4*. Refers to F. E. Foss, J. P. J. Williams.

623

(1) ALTHOUSE, RAYMOND RICHARD, 793 Lyons Ave., Irvington, N. J. (Age 22. Born Philadelphia, Pa.) 1928 C. E., Lehigh Univ. *TT 4: P 4*. Refers to M. O. Fuller, W. L. Willson.

624

(1) ALVAREZ LLERAS, JORGE, Bogota, Colombia. (Age 43. Born Bogota, Colombia.) 1906 C. E., Faculty of Mathematics and Eng. of Bogota. 1908 to 1910 Secy., School of Eng. of Narino, Pasto, Colombia. *TT 2: P 2*. 1911 to 1912 Sec. Engr., Ferrocarril de Antioquia, Medellin, Colombia. *TT 1: P 1*. 1912 to 1913 Engr., Dept. of Cundinamarca, Bogota, Colombia. *TT 1: P 1*. 1914 to 1917 Member, Bureau of Longitudes (Geodetic Survey) of Colombia. *TT 3: P 3*. 1917 to 1919 representing Meteorological Service of Ministry of Public Instruction in Europe and United States. *TT 2: P 2: RC 2*. 1919 to 1925 Prof., Faculty of Mathematics and Eng.; also Chf. Engr. of Railroads, Ministry of Public Works. *TT 6: P 6: RC 6*. 1925 to 1926 Pres., Soc. of Engrs. of Colombia. *TT 1: P 1: RC 1*. 1927 to 1928 Agt. for Colombian Government in Bocas de Ceniza, on construction contract of Ulen & Co. *TT 1: P 1: RC 1*. *TT 17: P 17: RC 13*. Refers to L. M. Gray, J. Pena Polo, J. Stewart, J. Triana, H. C. Willcox.

625

(10) AMBROSE, RAYMOND GORDON, Conway, S. C. (Age 24. Born Conway, S. C.) 1928 B. S. in Civ. Eng., Univ. of N. C. *TT 4: P 4*. Refers to G. M. Braune, T. F. Hickerson, H. F. Janda, T. Saville.

626

(8) **ANDERSON, WILLARD AVON**, 11307 Normal Ave., Chicago, Ill. Graduating student awarded Illinois Section prize. (Age 28. Born Chicago, Ill.) 1928 B. S. in Civ. Eng., Armour Inst. Tech. TT 4: P 4. 1918 to 1921 Draftsman, American Steel Foundries, Indiana Harbor, Ind. 1921 to 1923 Mechanic, Roseland Buick Sales Co. Sept. 1925 to June 1926 Asst. to instructors in Civ. Eng. Dept., Armour Inst. of Technology, two terms summer surveying school, and one school year in charge of instruments; computed three editions National Used Car Market Report. Feb. to April 1927 revised manual, Southern Pine Association, Chicago, Ill. TT 1.5: SP 1.5. TT 5.5: SP 1.5: P 4. Refers to J. W. Alvord, J. R. Griffith, J. A. Moss, E. S. Nethercut, W. D. Pence, H. Penn, C. L. Post, R. L. Stevens.

627

(3) **ARCHAMBAULT, JOSEPH UBALD**, 441 Sherbrooke East, Montreal, Que., Canada. (Age 24. Born Montreal, Que., Canada.) 1927 B. A. Sc., Ecole Polytechnique of Montreal, Quebec. TT 4: P 4. Summer 1925 Transitman, and Summer 1926 supervising field work and mapping, Quebec Stream Comm. Summer 1927 on operation and maintenance, Shawinigan Water & Power Co. TT 0.3: SP 0.3. TT 4.3: SP 0.3: P 4. Refers to C. M. Spofford, H. Sutherland.

628

(15) **ARIZPE, RUDOLPH VIESCA**, 619 South Leona St., San Antonio, Tex. (Age 24. Born San Pedro de las Colonias, Coahuila, Mexico.) 1928 B. S. in Civ. Eng., Tex. Univ. TT 4: P 4. Refers to E. C. H. Bantel, J. A. Focht, A. T. Granger, T. U. Taylor.

629

(11) **ARTHUR, FRANCIS WILLIAM**, Kaibab Forest, Ariz. (Age 24. Born Keswick, Cal.) 1928 B. S., Univ. of Cal. TT 4: P 4. March to Dec. 1925 Rodman and Levelman, U. S. Forest Service, on road location. May to July 1928 Levelman, U. S. Bureau of Public Roads. TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4. Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, F. S. Foote, S. T. Harding, C. G. Hyde.

630

(6) **ARTHUR, URIE NELSON**, 919 City County Bldg., Pittsburgh, Pa. (Age 58. Born Erie, Pa.) 1894 C. E., Allegheny Coll. 1895 to 1898 Rodman, Pennsylvania R. R. Co., made various surveys, plans, etc., designed masonry for bridge crossing Allegheny River at Warren. TT 2.6: P 2.6: RC 1.5: D 1.1. 1898 to 1901 Asst. Engr., Pittsburgh & Lake Erie R. R. Co., McKeesport, Pa., made surveys and supervised construction of Spear Run Branch at Bell Vernon and Dauners Run Branch at Fayette City, also various other surveys. TT 2.7: P 2.7: RC 2.7. 1901 to 1904 Asst. Engr., Wabash System, Pittsburgh, Pa., in charge of various surveys, estimates, etc., and (after 1903) of completion of construction of line between Pittsburgh and Jewett, Ohio, completed grading, masonry, erection of bridges (except Monongahela River and Ohio River Bridges), track laying, construction of water, freight and passenger stations, etc. TT 3: P 3: RC 3. 1905 to 1907 Div. Engr., Western Maryland R. R., Pittsburgh, in charge of surveys (about 200 miles) for location of line from Connellsville to Wheeling, including final location of this line and several branch lines; plans, profiles and estimates completed. TT 3.3: P 3.3: RC 3.3. 1907 to 1920 with Dept. of Public Works, and 1920 to date with Dept. of City Planning, City of Pittsburgh, engaged as follows: 1907 to 1910 Asst. Engr., and 1910 to 1916 Prin. Asst. Engr., Bureau of Surveys, on surveys for location, grade and construction of streets, re-establishment of street lines, etc., and (after 1910) in charge of all official surveys made by city, established system of precise bench marks throughout city, etc.; 1916 to 1920 Div. Engr., Bureau of Eng., on similar work; since 1920 Chf. Engr., Dept. of City Planning, had charge of surveys, studies and maps for zoning ordinance of city, and at present has charge of precise geodetic and topographic survey of city and immediate environs (approx. 100 sq. miles), and extension of precise levels to include newly annexed territory, and supervises general surveys for all planning projects. TT 22: P 22: RC 22. TT 29.6: P 29.6: RC 28.5: D 1.1. Refers to S. D. Foster, E. K. Morse, A. R. Raymer, J. M. T. Rice, N. S. Sprague.

631

(9) **ASH, CHARLES**, 330 South Charles St., Lima, Ohio. (Age 45. Born Ada, Ohio.) 1910 C. E., Ohio Northern Univ. TT 4: P 4. April to Aug. 1910 Rodman, Sacramento Valley Irrigation Co. at Willows, Cal. TT 0.1: SP 0.1. Aug. 1910 to Jan. 1912 Chainman and Recorder, U. S. Gen. Land Office. TT 0.6: SP 0.6. Feb. to June 1912 Leveler, Erie R. R. Co. TT 0.1: SP 0.1. June 1912 to Nov. 1914 and Sept. 1915 to April 1916 Chf. of Party, Morgan Eng. Co., on preliminary surveys, location and construction of drainage, levees, flood control at Memphis, Tenn., and preliminary survey for flood relief of Upper Scioto River Basin at Kenton, Ohio. TT 3: P 3: RC 3. Feb. to Sept. 1915 Engr.-in-Chg. of Pine St. Bridge, and March 1922 to Feb. 1923 Asst. City Engr. on surveys and plans for 21 city streets,

City of Lima, Ohio. *TT 1.5: P 1.5: RC 1.5: D 0.6.* April 1916 to May 1917 and Aug. 1917 to Aug. 1919 with Marion County, Ohio, first as Asst. County Surveyor on preliminary surveys and plans for flood relief of Scioto River in Marion, Ohio, and after Aug. 1917 Acting County Surveyor in charge of county work. *TT 3.1: P 3.1: RC 3.1: D 2.1.* May to Aug. 1917 Asst. County Surveyor, Wyandotte County, Ohio, surveys and plans for 4 miles of State highways. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Aug. to Nov. 1919 Res. Engr., Franklin County, Ohio, in charge of construction of West Broad St. Bridge, Columbus, Ohio. *TT 0.2: P 0.2: RC 0.2.* Nov. 1919 to Jan. 1921 Chf. Engr., Bureau of Bridges, Ohio, in entire charge of design and construction of state bridges. *TT 1.2: P 1.2: RC 1.2: D 0.6.* March to Aug. 1921 with Lima Constr. Co. as Engr.-in-Chg. of construction of Elm St. Bridge. *TT 0.4: P 0.4: RC 0.4.* Aug. 1921 to March 1922 Asst. County Surveyor, Allen County, Ohio, on surveys and plans for 35 miles of State roads. *TT 0.6: P 0.6: RC 0.6: D 0.4.* Feb. to June 1923 in private practice, prepared plans and supervised construction of two city bridges at Lima. *TT 0.3: P 0.3: RC 0.3: D 0.1.* June 1923 to date Res. State Highway Engr., Ohio, prepared plans and supervised construction of bridges (\$250 000) and roads (\$1 250 000). *TT 5: P 5: RC 5: D 2. TT 20.5: SP 0.9: P 19.6: RC 15.6: D 6.1.* Refers to I. C. Brower, V. A. Eberly, A. E. Morgan, G. A. Reese, G. F. Schlesinger, J. P. Shumaker, R. H. Smith.

632

(1) **AULL, JAMES LONG**, 9 Livingston Ave., New Brunswick, N. J. (Age 21. Born Pomaria, S. C.) 1927 B. S., Clemson Agri. and Mech. Coll. of S. C. *TT 4: P 4.* July 1927 to date Draftsman, Pennsylvania R. R. System, being Asst. in Supervisor's office, M. of W. Dept. *TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4.* Refers to E. L. Clarke, F. O. Dufour.

633

(10) **BABCOCK, CHARLES IRVING**, 911 Boulevard Circle, Atlanta, Ga. (Age 29. Born Griswold, Conn.) 1922 B. S., Worcester Pol. Inst. *TT 4: P 4.* Aug. 1916 to Aug. 1918 Inspector of Roads and Bridges, State Highway Comm. of Connecticut, under Div. Engr., on construction. *TT 1: SP 1.* June 1922 to Nov. 1927 Concrete Foreman, Designer, Supt. of Constr. and Gen. Supt. F. T. Ley & Co., Inc., New York City. *TT 5.2: SP 0.3: P 4.9. RC 4.* Nov. 1927 to date Res. Mgr., Seaboard & Southern Constr. Co., Atlanta, Ga., in charge of office, general construction. *TT 0.6: P 0.6: RC 0.6. TT 10.3: SP 1.3: P 9.5: RC 4.6.* Refers to J. W. Barnett, A. W. Bushell, A. W. French, J. A. Higgs, Jr., E. S. Humphreys, A. J. Knight, R. E. Spaulding.

634

(8) **BACKSTON, PHILIP**, 313 West Monroe St., Carbondale, Ill. (Age 23. Born Wilmington, Del.) 1927 B. S., Univ. of Del. *TT 4: P 4.* Nov. 1927 to date Jun. Highway Engr., Illinois State Highway Dept., on design. *TT 0.4: SP 0.4: D 0.4. TT 4.4: SP 0.4: P 4: D 0.4.* Refers to C. R. Dooling, L. Schwartz.

635

(15) **BAKER, JOHN FORD**, 212 Ellison Bldg., Ft. Worth, Tex. (Age 25. Born Ft. Worth, Tex.) Sept. 1920 to June 1923 Student in Civ. Eng., until Feb. 1923 at Texas Agricultural and Mechanical Coll., then at Univ. of Illinois. *TT 1.5: P 1.5.* 1923 to date with Brookes Baker, Surveyor, Ft. Worth, Tex., 2 years as Instrumentman, and past 3 years associated with Mr. Baker, on design and location of subdivisions, and in charge of construction of sewers, pavements, etc. *TT 4: SP 1: P 3: RC 3: D 3. TT 5.5: SP 1: P 4.5: RC 3: D 3.* Refers to T. S. Byrne, W. C. Hedrick, J. D. Johnson, W. O. Jones, D. L. Lewis, D. C. Lipscomb, F. J. Von Zuben.

636

(4) **BANTA, EDWIN SMEDLEY**, 4928 Chestnut St., Philadelphia, Pa. (Age 22. Born Philadelphia, Pa.) 1928 B. S. in C. E., Drexel Inst. *TT 4: P 4.* July-Dec. 1925 and June-Dec. 1926 Asst. Draftsman, Pennsylvania State Highway Dept. *TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4.* Refers to H. L. Bowman, S. J. Leonard.

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(10) **BARKLEY, FRANCIS WARREN**, 1211 Clark St., Old Hickory, Tenn. (Age 24. Born Wilmington, Del.) 1926 B. S. in Civ. Eng., Univ. of Del. *TT 4: P 4.* June 1926 to Aug. 1927 Chf. of Survey Party, New Castle County Eng. Dept., surveyed, drew plans, wrote proposals and specifications for and supervised inspection of construction of roads and bridges. *TT 1.2: P 1.2: RC 0.4.* Aug. 1927 to date Asst. Engr., E. I. duPont de Nemours & Co., acting as Field Engr. on construction of rayon plant at Old Hickory, Tenn., in charge of topographical survey, factory building layout, unit costs, and submitting of subcontractors' estimates. *TT 0.9: P 0.9. TT 6.1: P 6.1: RC 0.4.* Refers to W. M. Francis, S. W. Sawin, J. L. Warner.

638

(1) **BARROS-BARRETO, BENJAMIN FRANKLYN DE**, Caixa Postal 2398, Sao Paulo, Brazil. (Age 30. Born Pernambuco, Brazil.) 1922 C. E., Cornell Univ. *TT 4: P 4*. Sept. 1922 to Oct. 1923 Res. Engr. on Pitoco Dam construction, with Dwight P. Robinson Co., Inc., administrators for Brazilian Federal Govt. at Parahyba, Irrigation Reclamation Service. *TT 1: P 1*. Oct. 1923 to July 1924 Div. Engr. of Sewers, Div. Engr. of Water-Works and finally Chf. Engr. for both contracts for City of Fortaleza, Brazil; C. A. D. Bayley & Co. of Atlanta, Ga., Contrs. *TT 0.8: P 0.8: RC 0.6: D 0.6*. Aug. to Dec. 1924 Chf. Engr. for F. C. A. Barreto, Gen. Contr., designing sugar central at Volta Grande, Minas Geraes, Brazil. *TT 0.4: P 0.4: RC 0.4: D 0.4*. Jan. 1925 to date with Sao Paulo (Brazil) Tramway, Light & Power Co., as Chf. of Party on preliminary surveys, Serra Development, Chf. of topographical field work, and at present Asst. to Chf. Civ. Engr. and in charge of all field topographic, hydrographic and transmission line location. *TT 3.5: P 3.5: RC 3*. *TT 9.7: P 9.7: RC 4: D 1*. Refers to A. W. K. Billings, C. P. Conrad, J. G. Hollman, J. C. Terry, W. L. Zeigler.

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(13) **BARTLETT, WILLIS HENRY**, Paxton, Cal. (Age 29. Born Redding, Cal.) 1926 B. S. in Civ. Eng., Ore. State Coll. *TT 4: P 4*. Summer 1919 and June 1921 to Sept. 1922 Rodman, Div. II, State Highway of California. *TT 0.6: SP 0.6*. Summer 1923 Rodman, U. S. Reclamation Service. Summer 1925 Chainman, Seattle, Portland & Spokane Ry. April 1927 to date Draftsman and Rodman, Div. of Highways of California. *TT 0.6: SP 0.6*. *TT 5.2: SP 1.2: P 4*. Refers to J. F. Beaman, H. S. Comly, H. S. Rogers, S. Sims.

640

(11) **BAXTER, ELLERY READ**, 1125 Avoca Ave., Pasadena, Cal. (Age 23. Born Medford, Mass.) 1927 B. S., Cal. Inst. Tech. *TT 4: P 4*. June 1927-March 1928 Jun. Engr., Pasadena City Schools, drafting, surveying and inspecting construction. April 1928 to date Draftsman, Eng. Dept., Shell Co. of California. *TT 0.5: SP 0.5*. *TT 4.5: SP 0.5: P 4*. Refers to F. J. Converse, H. G. Lehrbach, R. R. Martel, W. W. Michael, F. Thomas.

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(11) **BEAN, ALTON L**, 661 I. W. Hellman Bldg., Los Angeles, Cal. (Age 34. Born Burke, N. Y.) Licensed Surveyor, State of California. Feb. 1914 to Sept. 1915 student, Polytechnic High School. Sept. 1915 to Jan. 1916 Mechanic, Pacific Light & Power Co. 1916 with Joint Bureau of Appraisal, Los Angeles County, and miscellaneous work. *TT 0.2: SP 0.2*. Jan. 1917 to Feb. 1918 Draftsman on maps, Los Angeles Title Insurance Co. (California Title Insurance Co.). *TT 0.6: SP 0.6*. Feb. 1918 to Feb. 1919 with U. S. Naval Air Service at various stations. *TT 0.5: SP 0.5*. Feb. 1919 to Nov. 1922 Draftsman and office work, Los Angeles County Flood Control Dist. *TT 1.8: SP 1.8*. Nov. 1922 to date in private practice as Civ. Engr. and Surveyor; has had charge of design and construction of street improvements, sewer and water systems, pumping plant and irrigation system, platting and laying out subdivisions, etc.; since Aug. 1927 also City Engr. of Huntington Park, Cal. *TT 5.7: P 5.7: RC 5.7: D 5.7*. *TT 8.8: SP 3.1: P 5.7: RC 5.7: D 5.7*. Refers to O. F. Cooley, S. M. Fisher, A. Jones, G. W. Jones, H. M. Jones, E. M. Lynch, F. C. McMillan, F. A. Noetzel, J. E. Rockhold, A. E. Timmons, A. K. Warren.

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(9) **BEAR, ROGER JONES**, 2983 Springer Ave., Cincinnati, Ohio. (Age 35. Born Staunton, Va.) 1914 B. S. in Civ. Eng., Washington and Lee Univ. *TT 4: P 4*. 1915 to 1917 Rodman, Leveler and Transman, Norfolk & Western Ry. Co. *TT 1.5: SP 1.3*. 1917 to 1919 2d and 1st Lieut., Field Artillery, U. S. Army. 1920 to 1921 Supt. of Constr. with H. M. Waugh, R. R. Contr., Bluefield, W. Va. *TT 1.2: P 1.2: RC 1: D 0.2*. 1921 to 1923 Asst. Constr. Engr., U. S. Shipping Board, on construction and design of large tank farm, piers, docks and buildings, Norfolk, Va. *TT 2.8: P 2.8: RC 2.4: D 0.4*. 1923 to 1925 Asst. Engr. on highways and bridges, Norfolk, on design, construction and maintenance of streets and bridges. *TT 2: P 2: RC 1.8: D 0.2*. 1925 to 1927 Res. and Asst. Engr., Seaboard Air Line Ry., on location, terminal layouts and construction. *TT 2: P 2: RC 2*. 1927 to date Asst. Engr., Cincinnati Union Terminal Co., on design and construction of new terminal. *TT 0.5: P 0.5: RC 0.5: D 0.5*. *TT 13.8: SP 1.3: P 12.5: RC 7.7: D 1.3*. Refers to J. M. Belkap, J. O. Miller, R. M. Miller, J. W. Ralitt, G. P. Stowitts, W. H. Taylor, H. M. Walte.

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(3) **BECKWITH, CHARLES SEWARD**, 536 Central St., Endicott, N. Y. (Age 24. Born Cincinnati, N. Y.) 1928 B. S. C. E., Ohio Northern Univ. *TT 4: P 4*. Refers to G. H. Elbin, A. R. Webb.

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(5) BEER, ROBERT AUGUR, McComas St. and Key Highway, Baltimore, Md. (Age 31. Born Baltimore, Md.) 1916 to 1918 took course in engineering, Delchman's Preparatory School, Baltimore, Md. Summers Rodman and Inspector, Baltimore City Water Dept. 1918 to 1919 Rodman, U. S. Gen. Land Office, Santa Fe, N. Mex. TT 0.5: SP 0.5. 1919 to 1921 Inspector, Bethlehem Steel Co., Sparrows Point, Md., on pile, concrete, forms, brick work, mill construction, etc. TT 1: SP 1. 1921 to 1922 Field Engr., Foundation Co., Magnolia, Md., in charge of field parties on plant layout, industrial plant construction. TT 1: P 1: RC 1. 1922 to 1923 with Whiting-Turner Constr. Co., 9 months as Costman and Labor Foreman on Loch Raven, Md., dam construction, and 3 months Asst. Supt. at Sparrows Point, Md., in charge of placing reinforcing steel and laying out work, repairing ore-handling dock. TT 0.6: SP 0.4: P 0.2: RC 0.2. 1923 to 1924 Supt. of Constr., Buick Co., assembly plant, Brooklyn, N. Y. TT 1: P 1: RC 1. 1924 to 1925 Engr., McClintic-Marshall Co., and 1925 to 1926 Chf. Inspector, Thos. E. Murray Co., on Hudson Ave. power house, Brooklyn. TT 2: P 2: RC 2. Aug. 1926 to Aug. 1927 Gen. Contr. and Bldr., in Connecticut and Baltimore, Md. TT 1: P 1: RC 1. Aug. 1927 to date Res. Engr., The J. E. Greiner Co., Baltimore, on railroad terminals and dock work. TT 0.9: P 0.9: RC 0.9. TT 8: SP 1.9: P 6.1: RC 6.1. Refers to H. H. Allen, E. J. Dougherty, J. E. Greiner, G. W. C. Whiting, E. B. Whitman.

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(*) BEER, ROBERT GARDINER, 315 Ditmas Ave., Brooklyn, N. Y. (Age 22. Born Brooklyn, N. Y.) 1928 C. E., Brooklyn Pol. Inst. TT 4: P 4. Refers to H. R. Codwise, H. P. Hammond, E. J. Squire.

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(1) BELL, EDWARD ARTHUR, Box 44, Passaic, N. J. (Age 21. Born Passaic, N. J.) 1928 B. S. in Mun. and San. Eng., Rutgers Univ. Summer 1926 Asst. Mechanic with M. Staub and Kolyn Constr. Co., on bridge construction. June 1928 to date Asst. Engr. in office and field, with Clyde Potts. TT 4: P 4. Refers to W. Gavett, F. H. Guerin, M. D. Kolyn, C. Potts, E. H. Rockwell, S. A. Stephenson, Jr., S. N. Williams.

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(1) BELOUSEK, FRANK ANTONE, Care, Ulen & Co., 25a Philhellenes St., Athens, Greece. (Age 26. Born Chotebor, Czecho-Slovakia.) Sept. 1919 to June 1920 student, Coll. of Eng., Univ. of Nebraska: July 1920 to Jan. 1921 and July 1921 to Jan. 1923 Cadet, U. S. Military Academy, West Point, N. Y. TT 1.5: P 1.5. Summer 1918 Machinist, Dempster Mill Mfg. Co., Beatrice, Nebr., erecting well machinery. Summer 1919 Pile Driver Runner, bridge construction, Gage County (Nebr.) Board of Commrs. Jan. 1923 to Sept. 1924 Computer, U. S. Coast and Geodetic Survey, Washington, D. C. TT 0.9: SP 0.9. Sept. 1924 to Oct. 1925 Computer and Chf. of Planetable party, City of Greensboro, N. C. TT 1.1: P 1.1: RC 0.6. Oct. 1925 to date with Ulen & Co., Athens, Greece, until Jan. 1928 as Div. Engr. in charge of south portal Bouyliati Tunnel, cut and cover aqueduct and reservoirs, and since then Asst. Supt. on same portal. TT 2.8: P 2.8: RC 2.8. TT 6.3: SP 0.9: P 5.4: RC 3.4. Refers to W. Bowie, R. W. Gausmann, C. V. Hodgson, R. H. Keays, R. M. Merriman, P. C. Painter, T. S. Shepperd.

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(12) BENEDICT, ARTHUR HAROLD, P. O. Box 3900, Portland, Ore. (Age 28. Born Lidgerwood, N. Dak.) 1928 B. S. in C. E., Univ. of Wash. TT 4: P 4. May to Sept. 1918 Chairman on highway work, Lynn County, Ore. TT 0.2: SP 0.2. Jan. 1919 to Sept. 1920 and Sept. to Nov. 1923 Draftsman, City of Portland, Ore., being Topographical Draftsman and Instrumentman. TT 0.9: SP 0.9. Jan. to May 1921 with Jos. R. Keep, Portland, as Instrumentman in charge of location and construction of logging road. TT 0.2: SP 0.2. May to Aug. 1921 Instrumentman, Multnomah Drainage Dist. No. 1, Ore., on highway construction. TT 0.1: SP 0.1. Nov. 1923 to May 1924 Draftsman, Long-Bell Lumber Co., municipal planning at Longview, Wash. TT 0.3: SP 0.3. Aug. 1921 to Sept. 1923 and May 1924 to date with U. S. Bureau of Public Roads, Portland, until Sept. 1923 as Field Draftsman and Instrumentman, and remainder of time Res. Engr. in charge of work as follows: May 1924 to Jan. 1926 location and construction of North End Sec., Metaline Highway, including 6½ miles location, clearing, grading, surfacing and minor structures (cost \$55 000); Jan.-June 1926 plans and estimate for 6 miles, Republic-South highway and (last 2 months) for 12 miles of construction, Kooskia-Lowell highway; July to Oct. 1926 6 miles of clearing, grading and minor structures and 12 miles surfacing (cost \$120 000), Cloud Cap Inn highway; June to Oct. 1927 highway construction, including 6 miles of clearing, grading and minor structures, and two 160-ft. span steel truss bridges with timber approaches (cost \$100 000). TT 3.6: SP 1.1: P 3.6: RC 2: D 0.5. TT 9.4: SP 2.9: P 6.5: RC 2: D 0.5. Refers to I. L. Collier, J. A. Elliott, C. W. Harris, C. C. More, R. B. Wright.

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(1) **BERDESHEVSKY, PETER G**, 44 Pine St., New York City (Age 33. Born Kamenka, Kleff, Russia.) 1918 A. B., and 1920 B. S. in C. E., Univ. of Pa. TT 4: P 4. Summers 1917-1919 Draftsman, Baldwin Locomotive Works, and (1919) American Bridge Co., Philadelphia, Pa. May 1920 to April 1921 Jun. Engr., Philadelphia Rapid Transit Co., surveys, laying out curves, taking off quantities and preparing estimates of various structures. TT 0.9: P 0.9. May 1921 to May 1924 Asst. Engr. and (last year) Dist. Engr., Barahona Sugar Co., Santo Domingo, surveys, railroad and bridge construction, building irrigation and drainage system (40 000 acres) of land, water supply and factory; in charge of development of district (3 000 acres). TT 3: P 3: RC 1. June to Oct. 1924 with World Zionist Organization, investigating and reporting on possibilities for irrigated sugar plantation in Jordan Valley, Palestine. TT 0.3: P 0.3: RC 0.3: D 0.3. Oct. 1924 to Feb. 1926 with San-German (Cuba) Sugar Co., as Asst. Field and Constr. Supt., on railroad construction, drainage (about 15 000 acres), supervising new field plantings, building houses in factory village, constructing steel-frame warehouse; also made independent investigations of two sugar properties in Cuba. TT 1.4: P 1.4: RC 1.4: D 0.4. March 1926 to April 1927 Chf. Engr., American Zion Commonwealth in Palestine, on colonizing and construction, also supervision of four field offices. TT 1: P 1: RC 1: D 1. May 1927 to Jan. 1928 Liaison Engr., Russian Coal & Sugar Comms., in United States, visited mines, machinery and machinery-manufacturing plants, sugar mills, etc.; made study of methods of operation, production, costs, machinery, and prepared reports. TT 0.7: P 0.7. Jan. 1928 to date Advisory Engr., A. M. Lamport & Co., Investment Bankers, and Columbia Investing Corporation, investigating industrial projects in United States and West Indies, prepares plans for consolidated properties, represents bankers in negotiations, etc. TT 0.3: P 0.3: RC 0.3. TT 11.6: P 11.6: RC 4: D 1.7. Refers to J. L. Burkholder, H. T. Camplon, M. L. Kaufman, L. S. Moisseiff, S. Pincus, A. Wolman.

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(3) **BERNSTEIN, LOUIS STEWART**, 537 Eleventh St., Niagara Falls, N. Y. (Age 40. Born New York City.) 1911 B. S. in Civ. Eng., Univ. of Ill. TT 4: P 4. June to Sept. 1911 Jun. Engr., laying out construction, giving lines and grade, and July 1912 to June 1914 Draftsman and Designer on hydro-electric structures, Hydraulic Power Co., Niagara Falls, N. Y. TT 2.2: P 2.2: RC 1: D 1.9. Sept. to Dec. 1911 Jun. Engr., Illinois State Highway Comm., on lines and grades for concrete highway bridges, also inspection. TT 0.3: P 0.3. Jan. to July 1912 Draftsman, American Bridge Co., Gary, Ind., detailing structural steel, etc. TT 0.5: P 0.5. June 1914 to June 1918 Designing Engr., City of Chicago, Ill., on Wilson Ave. crib, Mayfair pumping station, interconnecting tunnels and improvements to water-supply system. TT 4: P 4: RC 4: D 4. Feb. 1924 to Sept. 1926 Engr. in charge of designing with Harper & Taylor, Inc., Philadelphia, Pa., on preliminary designs and reports on several hydro-electric projects on Salmon and Gasconade Rivers, etc. TT 2.5: P 2.5: RC 2.5: D 2.5. June 1918 to Feb. 1924 and Sept. 1926 to Dec. 1927 with Niagara Falls (N. Y.) Power Co., until June 1921 as Designing Engr. and remainder of time Engr. in Chg. of Designing, on Schoellkopf Station, Secs. No. 3B and 3C (three 37 500-h.p. and three 70 000 h.p. units, transmission lines, etc.) and (after Sept. 1926) design and reports on miscellaneous hydro-electric projects, transmission lines, etc. TT 7.2: P 7.2: RC 7.2: D 7.2. TT 20.7: P 20.7: RC 14.7: D 15.6. Refers to W. B. Bennett, O. D. Dales, N. R. Gibson, W. Kelly, W. McCulloh, H. P. Rust, H. B. Taylor.

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(5) **BERRY, RALPH WHITELEY**, 7005 Meadow Lane, Chevy Chase, Md. (Age 49. Born Nashville, Tenn.) Sept. 1898 to Jan. 1901 student, Eng. Dept., Vanderbilt Univ., Nashville, Tenn. TT 1: P 1. Summer 1900 Draftsman, and Jan. to June 1902 Instrumentman, Louisville & Nashville R. R. TT 0.2: SP 0.2. Jan. to March 1901 Rodman, and Nov. 1901 to Jan. 1902 Draftsman, Tennessee Central Ry. TT 0.2: SP 0.2. April 1905 to March 1906 Asst. Engr., Isthmian Canal Comm., Empire, Canal Zone, Panama, on field and office work for construction of canal. TT 1: P 1. July 1917 to March 1919 Capt., Engrs., U. S. Army, at Marathon, Tex., Franklin and Camp Eustis, Va., and Washington, D. C., on topographic map work. TT 1.7: P 1.7: RC 1.7. March to Nov. 1901 Transverseman, July 1902 to March 1905 Asst. Topographer, March 1906 to July 1917 Topographer, and April 1919 to date Topographic and Geodetic Engr., being Maker of relief maps, and Chf., Div. of Relief Maps, U. S. Geological Survey, Washington, D. C., on office work, etc. and in field parties (in charge after March 1906) on topographic mapping, etc. TT 23.3: SP 0.3: P 23: RC 15.3: D 5. TT 27.4: SP 0.7: P 26.7: RC 17: D 5. Refers to C. H. Birdseye, T. G. Gerdine, J. C. Hoyt, F. E. Matthes, T. P. Pendleton, D. L. Reaburn, C. L. Sadler.

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(1) **BEST, ROBERT WILLINGHAM**, 39 West Twenty-Seventh St., New York City. (Age 27. Born Benson, La.) Student, Univ. of Kansas (1918 to 1919) and Univ. of Illinois (1919 to 1920) *TT 1: P 1.* Aug. 1921 to Feb. 1922 Chainman, Missouri, Kansas & Texas R. R. Co. *TT 0.3: SP 0.3.* May 1922 to April 1923 Draftsman, Texas & Pacific Ry. *TT 0.5: SP 0.5.* April 1923 to Aug. 1924 Rodman, Missouri Pacific R. R. Co. *TT 0.7: SP 0.7.* Oct. 1924 to Sept. 1925 Topographic Draftsman, 1st Dist., U. S. Engr. Office, New York City, on maps for New York Harbor Improvements, docks, river tunnels and dredging. *TT 0.5: SP 0.5.* Sept. 1925 to April 1927 Track Draftsman, Board of Transportation, New York City, laying out railroad yard, Coney Island, also computing. *TT 0.8: SP 0.8.* April 1927 to Jan. 1928 Surveyor and Draftsman for G. W. Knight, Cons. Engr., Passaic, N. J., laying out sidewalks, establishing and computing township lines. *TT 0.4: SP 0.4.* *TT 4.2: SP 3.2: P 1.* Refers to C. G. Buchanan, H. L. Hurd, G. W. Knight, J. W. Peterson, W. H. Vance.

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(3) **BILLION, CHARLES EDWARD**, 824 Avery Ave., Syracuse, N. Y. (Age 21. Born Syracuse, N. Y.) 1928 Graduate in Civ. Eng. Coll. of Applied Sci., Syracuse Univ. Summers testing wire and work on rolls, etc., Crucible Steel Co., Syracuse, N. Y. (1925), Laborer, Carpenter and Asst. Engr. on power-house construction, with Mr. Lastina, Bridgeport, N. Y. (1926), and Instrumentman, Chainman, Transitman, Planetableman, etc., on highway and railroad location, etc., Syracuse Univ. Summer Camp (1 month each year). *TT 4: P 4.* Refers to G. D. Holmes, W. A. Lyon, L. Mitchell, S. D. Sarason.

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(11) **BITNER, MELVILLE SPERRY**, 960 Fourteenth St., Boulder, Colo. (Age 23. Born Berwyn, Ill.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4.* Refers to F. R. Dungan, C. L. Eckel.

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(15) **BLACKALLER, JAMES HARRISON**, Seymour, Tex. (Age 21. Born Frio Town, Tex.) 1928 B. S., Agri. and Mech. Coll. of Tex. Summer 1926 Rodman and Chainman with Nagle, Witt & Rollins. *TT 4: P 4.* Refers to T. A. Munson, J. T. L. McNew, J. J. Richey.

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(10) **BLAIR, PAUL McCREARY**, 1240 Laura St., Clearwater, Fla. (Age 21. Born Washington, D. C.) 1928 B. S. C. E., Univ. of Fla. Summer 1926 Rodman and Chainman with City Engr. *TT 4: P 4.* Refers to C. C. Brown, C. E. Burleson, W. W. Fineren, J. K. Harris, P. L. Reed.

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(8) **BLONDIN, JOHN RALPH**, 404 East Daniel St., Champaign, Ill. (Age 26. Born Spirit, Wis.) 1928 B. S. in Civ. Eng., Univ. of Ill. *TT 4: P 4.* Refers to H. Cross, W. C. Huntington.

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(9) **BORINTRAGER, ROBERT ALLEN**, 65 Thirteenth Ave., Columbus, Ohio. (Age 25. Born Townville, Pa.) 1928 B. C. E., Ohio State Univ. *TT 4: P 4.* Summer 1923 Carpenter Inspector, Pennsylvania R. R., Renova Div., Erie, Pa., in drafting room and on surveys. *TT 0.1: SP 0.1.* Sept. 1923 to Sept. 1925 Draftsman, Instrumentman and Chf. Inspector, Dept. of Highways, Commonwealth of Pennsylvania, Erie, in charge of engineering and inspection on two steel bridges. June to Nov. 1926 Structural Steel Worker, Rigger and Carpenter, and Summer 1927 Asst. Engr., being Materialman and computing quantities, assisting on estimates, etc., Walsh Constr. Co., Akron, Ohio. *TT 1.3: SP 0.8: P 0.5: RC 0.5.* *TT 5.4: SP 0.9: P 4.5: RC 0.5.* Refers to E. F. Coddington, C. T. Morris, J. C. Prior, J. R. Shank, C. E. Sherman, R. C. Sloane.

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(2) **BOWMAN, CHARLES AUGUSTUS**, 93 Kimberly Ave., New Haven, Conn. (Age 38. Born New Haven, Conn.) 3 years student, Sheffield Scientific School. *TT 1.5: P 1.5.* 1913 to 1914 Rodman, New York, New Haven & Hartford R. R. Co. *TT 0.8: SP 0.8.* 1915 to 1916 Sewer Engr. for Thos. F. Maher, in charge of contract for 33-mile sewer in West Haven. *TT 2: P 2: RC 2: D 1.* 1917 to 1918 Asst. Engr., City Engr.'s office, New Haven, Conn., in charge of pavement construction and asphalt testing; took special course in asphalt pavement at Barber Asphalt Co.'s Plant, Maurer, N. J. *TT 2: P 2: RC 2: D 1.* 1919 to 1922 Engr. in charge of West River Dam and tide gates (2 years) and of plant construction at Winchester Repeating Arms Co. (1 year). *TT 3: P 3: RC 3: D 1.* 1922 to 1925 Res. Engr. in full charge of construction on Tomlinson (bascule) bridge (\$1 250 000). *TT 3: P 3: RC 3: D 1.* 1926 to 1927 in full charge of mapping for City of New Haven. *TT 2: P 2: RC 2.* 1927 to date Engr. in charge of construction of Yellow Mill bridge (\$1 500 000),

Bridgeport, Conn. TT 1: P 1: RC 1: D 0.5. TT 15.3: SP 0.8: P 14.5: RC 13: D 4.5. Refers to E. J. Beugler, C. M. Blair, C. Blakeslee, H. L. Blakeslee, J. W. Rollins, Jr., E. W. Wiggin.

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(11) **BOYER, MARION CLIFFORD**, 442 Marine St., Boulder, Colo. (Age 20. Born Boise, Idaho.) 1928 B. S. in C. E., Univ. of Colo. TT 4: P 4. Refers to R. L. Downing, F. R. Dungan, C. L. Eckel, C. E. Learned.

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(15) **BRAY, FRED LEROY**, 510 West Park St., Enid, Okla. (Age 22. Born Caldwell, Kans.) 1928 B. S. in C. E., Univ. of Colo. TT 4: P 4. Refers to R. L. Downing, C. L. Eckel.

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(3) **BRIAN, LAWRENCE GORDON**, 37 Virginia Ave., Poughkeepsie, N. Y. (Age 23. Born New York City.) 1928 B. S. in C. E., Ohio Northern Univ. Summer 1927 Draftsman, Turner Constr. Co., New York City. TT 4: P 4. Refers to G. H. Elbin, A. R. Webb.

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(11) **BRICKHAM, LEONARD ALBERT**, 1302 South Vine St., Denver, Colo. (Age 21. Born Denver, Colo.) 1928 B. S. in C. E., Univ. of Colo. Oct. 1926 to Aug. 1927 Structural Draftsman, The Dorr Co., tracing and drafting. TT 4: P 4. Refers to C. L. Eckel, H. J. Gilkey.

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(8) **BRODARICH, ROMANO FRANK**, 1906 West Sixty-First St., Chicago, Ill. (Age 21. Born Butte, Mont.) 1928 B. S., Univ. of Ill. TT 4: P 4. Refers to N. D. Morgan, L. H. Province.

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(1) **BROOME, ERNEST LAWRENCE**, 120 South Broadway, Tarrytown, N. Y. (Age 58. Born Central Falls, R. I.) 1897 B. S., and 1898 M. E., Cooper Union. 1885 to 1889 Apprentice and Draftsman with Hall & Makepeace and C. R. Makepeace & Co., Providence, R. I. TT 2: SP 2. 1889 to 1892 Draftsman, successively with J. S. Brown, Pawtucket, R. I., on foundry and machine shop work, Phoenix Iron Works and Rhode Island Locomotive Works, Providence, and West End St. Ry. Co., Boston, Mass. TT 2: SP 2: D 1. 1892 to 1894 Chf. Draftsman, Globe Iron Works, New York City, and (6 months) Sprague Elec. Elevator Works, Watsessing, N. J. TT 2: P 2: RC 2. 1894 to 1898 Draftsman, Metropolitan St. Ry. Co., New York City, and (6 months) Varley Duplex Magnet Co., Jersey City, N. J. TT 5: P 5: D 5. 1898 to 1902 Draftsman and Chf. Draftsman, Manhattan Ry. Co., New York City. TT 3.5: P 3.5: RC 1: D 2.5. 1902 to 1903 Mech. Engr., White Mountain Paper Co., Portsmouth, N. H. TT 1: P 1: RC 1. 1903 to 1907 Asst. and Steam Engr., New York Central & Hudson River R. R., New York City. TT 4: P 4: RC 4. 1907-1927 Chf. Draftsman and Mech. Engr. with Viele, Blackwell & Buck, New York City. TT 21: P 21: RC 21. Jan. 1928 to date Cons. Engr. with Phillips & Davies, Inc., Kenton, Ohio, and New York City. TT 0.5: P 0.5: RC 0.5. TT 41: SP 4: P 37: RC 29.5: D 8.5. Refers to L. J. Bevan, F. O. Blackwell, G. A. Orrok, H. P. Rust, H. S. Slocum.

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(1) **BROWN, CHARLES DANIEL**, 146 First St., Wood Ridge, N. J. (Age 22. Born Wood Ridge, N. J.) 1928 B. S., Cooper Union Inst. Tech. TT 4: P 4. Refers to H. R. Codwise, F. E. Foss, G. Morrison.

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(7) **BROWN, HERBERT HENRY**, 1205 Thirty-Sixth St., Milwaukee, Wis. (Age 33. Born Milwaukee, Wis.) 1917 B. S., Univ. of Wis. TT 4: P 4. Feb. 1913 to June 1917 (while student) on mechanical drawing and timekeeping, Cutler-Hammer Co. (about 7 months), laying reinforcing steel, Newton Eng. Co. (3 months) and shop work, Chicago, Milwaukee & St. Paul Ry. Co. (3 months). May 1917 to May 1919 Capt. of Infantry, U. S. Army, on construction of large target range, complete set of field fortifications, special surveys, and construction, moving and razing of sheds and buildings, etc. TT 1: P 1. June 1919 to June 1920 Estimator, Draftsman and Designer, Worden Allen Co., Milwaukee, Wis., on structural steelwork. TT 1: P 1. June 1920 to Jan. 1922 Mech. Draftsman, Prime Mfg. Co., Milwaukee. TT 1.5: P 1.5. Jan. 1922 to date with City of Milwaukee as follows: Jan. to June 1922 Draftsman on plans for new pumping station; June 1922 to May 1923 Asst. Engr. in charge of grade separation, design of grade separation project and laying out work in field; May 1923 to April 1924 Structural Designer, design and drawing work on Riverside pumping station; April 1924 to March 1926 Gen. Eng. Designer, field surveys, plans, specifications and designs for retaining walls, hollow sidewalk reconstruction, grade-separation projects, etc.; March 1926 to Jan. 1927 Special Asst. Engr., on special surveys, reports and investigations on engineering projects; since Jan. 1927 Engr. in Chg. of design and construction of pumping stations, being responsible for design, instal-

lation and construction of all mechanical equipment and buildings. *TT 6.5: P 6.5: RC 1.5. TT 14: P 14: RC 1.5.* Refers to R. H. Cahill, C. A. R. Distelhorst, R. W. Gamble, E. L. Knebes, R. R. Lundahl, J. P. Schwada, F. W. Ullius, Jr.

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(15) **BROWN, JULIAN CLIFFORD**, 212 West McKinley, Blackwell, Okla. (Age 22. Born Abingdon, Ill.) 1928 B. S. in C. E., Univ. of Ill. Summer 1927 Jun. Highway Engr., Illinois State Highway Dept., office design and right of way. *TT 4: P 4.* Refers to H. Cross, W. C. Huntington, G. W. Pickels, T. C. Shedd, A. N. Talbot, J. Vawter, C. C. Wiley.

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(11) **BUIRGY, JOSEPH McDONALD**, 50 South Alcott St., Denver, Colo. (Age 21. Born Denver, Colo.) 1928 B. S. in Civ. Eng., Univ. of Colo. *TT 4: P 4.* Refers to R. L. Downing, F. R. Dungan, C. L. Eckel, H. J. Gilkey.

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(15) **BUTLER, ROBERT BYRON**, Box 67, Huntsville, Tex. (Age 26. Born Carthage, Tex.) Aug. 1920-July 1921 Foreman for Butler Bros., Contrs., on county road construction in Rusk County, Tex. *TT 0.5: SP 0.5.* Aug. 1921 to Jan. 1922 with Trinity Portland Cement Co., construction cost keeping on concrete highway construction in Tarrant County, Tex. *TT 0.4: SP 0.1: P 0.3.* June to Aug. 1920 and Jan. 1922 to date with Tibbetts Constr. Co., in 1920 cost keeping and Timekeeper on construction of highway on Millsap Mountain, Parker County, Tex., Jan. to May 1922 Asst. Engr. estimating and bidding on proposed projects, and since May 1922 Supt. on construction, in charge of all engineering work, plant design, methods of procedure, organization of crews, buying and handling of materials, quantity surveying, etc.; work included 70 miles of highway with grading, drainage structures, graveling and concrete paving (\$1 053 303) for Collin County, concrete paving, concrete roads, waterbound macadam and asphalt surfacing grading and drainage structures, street paving, curb and gutter, storm sewer, etc. (\$54 683 to \$450 000, given in detail in application). *TT 6.3: SP 0.5: P 5.8: RC 6. TT 7.2: SP 1.1: P 6.1: RC 6.* Refers to F. L. Bramlette, F. W. Cawthon, A. F. Daniel, J. T. L. McNew, A. J. Wise.

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(1) **CAGNANI, JOSEPH LLOYD**, 1108 East 179th St., New York City. (Age 24. Born New York City.) 1928 B. S. in C. E., Cooper Union. April 1922 to Dec. 1923 Mech. Draftsman, Cutler-Hammer Mfg. Co., New York City, on switchboard panel and newspaper conveyor layouts. Dec. 1923 to date Estimator, Draftsman and Asst. to Chf. Engr., Harris Structural Steel Co., New York City, estimating and detailing steel structures, general paper work and elementary design. *TT 4: P 4.* Refers to F. E. Foss, J. P. J. Williams.

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(7) **CALVIN, HEATH PAUL**, 424 North Fourth St., Niles, Mich. (Age 23. Born Benton Harbor, Mich.) 1928 B. S. in C. E., Univ. of Mich. *TT 4: P 4.* June 1924 to Sept. 1926 Asst. to City Engr., Niles, Mich. *TT 1.7: SP 0.7: P 1. TT 5.7: SP 0.7: P 5.* Refers to R. L. Sherlock, C. O. Wisler.

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(11) **CARLSON, ROY WASHINGTON**, 125 Stockbridge Ave., Alhambra, Cal. (Age 27. Born Ortonville, Minn.) 1922 A. B., Univ. of Redlands, Cal. July 1922 to Sept. 1923. June to Sept. 1924, and Sept. 1925 to March 1927 with Southern California Edison Co., as follows: July to Nov. 1922 Recorder; Nov. 1922 to Feb. 1923 Jun. Draftsman; Feb. to Sept. 1923 and June to Sept. 1924 Draftsman, some research work on concrete; Sept. 1925 to March 1927 Concrete Inspector, inspecting concrete, forms, foundation and steel for river section of Florence Lake multiple arch dam and (after Nov. 1925) acting as Testing Engr. on Stevenson Creek experimental dam, installing and observing electrical strain and temperature, interpreting test data, etc. *TT 2.3: SP 1: P 1.3.* Sept 1923 to June 1924 Graduate Student in physics and mathematics, California Inst. of Technology. Sept. 1924 to Sept. 1925 Associate Prof. of Physics and Eng., Univ. of Redlands. *TT 1: P 1.* March 1927 to date Testing Engr., being Head of Testing Dept., Los Angeles County Flood Control Dist., designing mixes and testing materials for structures, including four arch dams, several earth fills and storm drains. *TT 1.4: P 1.4: RC 1.4. TT 4.7: SP 1: P 3.7: RC 1.4.* Refers to R. C. Booth, W. L. Chadwick, H. W. Dennis, E. C. Eaton, F. A. Noetzli, A. B. Pierce, W. A. Slater.

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(12) **CARTER, LEO ALEXANDER**, 416 East Sixty-Third St., Seattle, Wash. (Age 27. Born Eminence, Mo.) 1928 B. S. in C. E., Univ. of Wash. *TT 4: P 4.* June to July 1927 Fitter, Wallace Bridge & Structural Steel Co., Seattle, Wash., assembly of structural steel shapes. Jan. 1925 to Jan. 1926, Summer 1926 and July to Oct. 1927 with Boeing Airplane Co., Seattle, 1 year as Detaller of fittings, engine mounts and power-plant installations for

airplanes, and remainder of time Draftsman, on design of flotation gear for emergency buoying of landplanes flown as seaplanes, fittings, control mechanisms, etc. *TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4.* Refers to I. L. Collier, J. B. Hamilton, C. W. Harris, C. C. May, C. C. More.

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(10) **CARTER, XURY BERNARD**, Box 1103, University, Ala. (Age 26. Born Troy, Ala.) 1928 B. S. and B. S. C. E., Univ. of Ala. *TT 4: P 4.* June to Sept. 1923 Instrumentman for R. O. Dykes, Louisville, Ala., subdivision and sewer work. June 1924 to Sept. 1925 Chf. of Party, Lockwood, Greene & Co., Engrs., Boston, Mass., on road construction and location at Winnsboro, S. C. Summer 1926 with Southern Paving Constr. Co. of Chattanooga, Tenn., in charge of central proportioning plant at Newberry, S. C., on hard surfaced road (7 miles), Newberry to Prosperity, S. C. *TT 1.2: P 1.2. TT 5.2: P 5.2.* Refers to G. J. Davis, Jr., S. C. Houser.

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(13) **CASTELAZO, ARTHUR HARROLD**, 2634 Channing Way, Berkeley, Cal. (Age 22. Born San Francisco, Cal.) 1928 B. S., Univ. of Cal. *TT 4: P 4.* July 1923 to Aug. 1924 Minor Asst. and later Chainman, U. S. Gen. Land Office. *TT 0.5: SP 0.5.* May 1928 to date Draftsman, California Water Service Co. *TT 0.1: SP 0.1. TT 4.6: SP 0.6: P 4.* Refers to C. Derleth, Jr., B. A. Etcheverry, S. T. Harding, C. G. Hyde.

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(8) **CHAMBERLIN, STEPHEN JOHNES**, 1321 St. Louis Ave., East St. Louis, Ill. (Age 21. Born Pueblo, Colo.) 1928 B. S., Univ. of Ill. *TT 4: P 4.* Refers to J. J. Doland, W. C. Huntington.

678

(1) **CHARM, LEO MORRIS**, 41 St. Nicholas Terrace, New York City. (Age 33. Born Lausanne, Switzerland.) B. S. in Physics Mathematique, and 1920 Civ. and Constr. Engr., Univ. of Lausanne. *TT 2: P 2.* July to Dec. 1914 Cand. Engr. with Prof. Cheneau on triangulation, Glacier d'Arolla. *TT 0.2: SP 0.2.* Jan. 1915 to April 1917 Asst. Designer, Second Engr. Div. of Army, on design and construction of temporary bridges. *TT 1.7: SP 0.5: P 1.2: D 1.2.* 1917 to 1924 Asst. Engr. successively with A. Paris, Engr. and Contr., Lausanne, Switzerland, on design of reinforced concrete bridges and reservoir (2½ years), First Div., Federal R. R. electrification (1¼ years), Atelier de Construction Metallique a Vevey, on design and reinforcing steel bridges (1½ years) and Dr. Bonjour, Archt., Lausanne, on general design in steel and concrete (over 10 months). *TT 6.8: P 6.8: RC 5.5: D 6.* April 1925 to date with Rosoff Subway Constr. Co., on Rapid Transit R. R. construction, until March 1927 as Asst. Engr. on part of Route 78, Sec. 3 A, and since then Engr. of Constr., Route 101, Secs. 3 and 4. *TT 3.3: P 3.3: RC 3: D 1.9. TT 14: SP 0.8: P 13.2: RC 8.4: D 9.* Refers to J. A. A. Connelly, C. H. Crooks, A. H. Diamant, C. A. Hunt, R. A. Shaller.

679

(5) **CHENOWETH, WILL ROY**, U. S. Geological Survey, Washington, D. C. (Age 42. Born Redding, Cal.) June 1905–April 1906 Rodman and Chainman, successively with City of Redding, Cal. LaMoine (Cal.) Lumber & Trading Co. and J. A. Donegan. *TT 0.5: SP 0.5.* April 1906–May 1907 Rodman, Chainman, Draftsman and Instrumentman, City of Redding, street and sewer construction. *TT 0.7: SP 0.2: P 0.5.* Feb. to May 1909 Gen. Asst. to Ch. Weigh, Redding, mine surveying. *TT 0.1: SP 0.1.* Feb. 1915 to Dec. 1916 Land Classifier, County Assessor, Shasta County, Cal., farming lands. *TT 1.7 P 1.7.* May to Nov of years 1907 and 1909, May to Dec. 1908, July 1910 to Nov. 1914 and May 1917 to date with U. S. Geological Survey, as Recorder, Rodman, Asst. to Topographer, Instrumentman, Topographical Aid, Field Asst., Jun. Topographer, Asst. Topographical Engr. (1925) and Associate Topographical Engr. (since 1926), on topographic and general mapping, etc. *TT 14.8: SP 1.5: P 13.3: RC 10. TT 17.8: SP 2.3: P 15.5: RC 10.6.* Refers to C. H. Birdseye, F. A. Danforth, T. G. Gerdine, M. J. Gleissner, W. G. Hoyt.

680

(1) **CHOW, LEE**, Care, Teng-Fu Chow, Tao-Ching Ry. Office, Chiao-Tso, Honan, China. (Age 25. Born Ku-shih-Sien, Honan, China.) 1928 M. S., Univ. of Ill. *TT 4: P 4.* Refers to H. Cross, W. C. Huntington, T. C. Shedd, W. M. Wilson.

681

(9) **CHRISTENSEN, JOHN CHRISTIAN VALDEMAR**, 1020 Temple Bar Bldg., Cincinnati, Ohio. (Age 47. Born Copenhagen, Denmark.) 1903 C. E., Pol. Coll., Copenhagen, Denmark. *TT 4: P 4.* May 1903 to Sept. 1905 Rodman and Draftsman for various railroads. *TT 1.2: SP 1.2.* Sept. 1905 to March 1907 with Detroit River Tunnel Co., Detroit, Mich., as Designer of tunnel sections, retaining walls and highway bridge and (part of time) Inspector on driving of tunnel headings. *TT 1.2: SP 0.2: P 1.* March 1907 to Feb. 1908, May 1909 to April 1913 and Aug. 1916 to Nov. 1917 with New York Central R. R.

until Feb. 1908 as Draftsman and Designer, then Designer and Squad Chf., on design of steel, concrete and timber railroad and highway bridges, Elec. Zone, part of time being in charge of field investigations for foundations, and after Aug. 1916 Designer on design and estimates for steel and concrete structures for contemplated improvements in Cleveland, and Buffalo station improvements. *TT 6.1: P 6.1: RC 3.6.* Feb. 1908 to May 1909 in private business. April 1913 to Aug. 1916 Designing Engr., Gulf, Florida & Alabama Ry., Pensacola, Fla., in charge of all structural design, bulkheads, piers, pier sheds, sub and superstructures for bridges, coffer dams, etc. *TT 3.3: P 3.3: D 3.3.* Nov. 1917 to Oct. 1918 Designing Engr., Calco Chemical Co., Bound Brook, N. J., in charge of design for plant alterations and extensions. *TT 0.9: P 0.9: RC 0.9: D 0.9.* Oct. 1918 to March 1926 Engr., The Terry & Tench Co., Inc., New York City, had charge of engineering on Stapleton piers for New York City, underpinning Lincoln Memorial, Washington, D. C., Bear Mountain Hudson River Bridge, etc. *TT 7.5: P 7.5: RC 7.5: D 7.5.* March 1926 to Dec. 1927 Structural Engr., The Foundation Co., New York City, had charge of structural design for shops for Wabash R. R., Decatur, Ill., new plant for Goodrich Rubber Co. at Los Angeles, Cal., harbor improvements in Venezuela and Peru, etc. *TT 1.8: P 1.8: RC 1.8: D 1.8.* Dec. 1927 to date Structural Engr., Cincinnati (Ohio) Union Terminal Co., in charge of all structural design for new passenger terminal. *TT 0.4: P 0.4: RC 0.4: D 0.4. TT 26.4: SP 1.4: P 25: RC 17.5: D 13.9.* Refers to A. W. Carpenter, G. L. Freeman, G. T. Kuntz, C. P. Marsh, R. Y. Patterson, G. P. Stowitz, H. M. Waite.

682

(13) **CHRISTIENSEN, JERALD EMMETT**, University Farm, Davis, Cal. (Age 23. Born Hyrum, Utah.) 1927 B. S. in Agri. Eng., Utah Agri. Coll. 1928 M. S. in Civ. Eng., Univ. of Cal. *TT 4: P 4.* Refers to C. Derleth, Jr., B. A. Etcheverry, E. B. Feldman, S. T. Harding, C. G. Hyde, O. W. Israelson, L. M. Winsor.

683

(1) **CICCOLILLI, PETER ROBERT**, 197 Carlton Ave., Brooklyn, N. Y. (Age 22. Born Brooklyn, N. Y.) 1928 C. E., Brooklyn Pol. Inst. *TT 4: P 4.* Refers to H. R. Codwiae, H. P. Hammond, E. J. Squire.

684

(2) **CLARK, KENNETH ALLEN**, 929 Broadway, South Boston, Mass. (Age 21. Born Boston, Mass.) 1928 B. S., Mass. Inst. Tech. *TT 4: P 4.* Refers to C. M. Spofford, C. H. Sutherland.

685

(3) **CLARK, ROY JAMES**, 315 Leonard St., Onelda, N. Y. (Age 24. Born Verona Station, N. Y.) 1928 B. S. in C. E., Ohio Northern Univ. *TT 4: P 4.* June to Dec. 1925 and Summers 1926 and 1927 with City of Onelda, N. Y., being Inspector of cast-iron pipe, and of pipe laying on Florence Creek soft water project, also some work as Cement Inspector, Chalmers and Rodman, and (1927) Asst. to City Engr., drawing maps, acting as Levelman and Transitman, estimating costs, etc. *TT 0.2: SP 0.2. TT 4.2: SP 0.2: P 4.* Refers to G. H. Elbin, F. J. Wagner, A. R. Webb.

686

(4) **CLASS, CHARLES FRANK, Jr.**, 321 Paxtang Ave., Harrisburg, Pa. (Age 21. Born Camden, N. J.) 1928 C. E., Lehigh Univ. Summer 1927 Inspector Pennsylvania Dept. of Highways, on grading and concrete paving, reinforced concrete bridge and plate girder bridge (2 span). *TT 4: P 4.* Refers to C. F. Class, R. J. Fogg, H. G. Payrow, E. H. Uhler, W. L. Wilson.

687

(14) **COBB, GUY WILLIAMS**, American Trust Bldg., Jonesboro, Ark. (Age 38. Born Jonesboro, Ark.) 1914 to 1919 County Surveyor and County Engr., Craighead County, Ark.; 1914 to 1916 as Engr. in Chg., designed and supervised construction (\$45 000), Drainage Dist. No. 10, same county. 1917 to 1919 (except 3 months with U. S. Army) with Board of Comms. of Street Improvement Dist. No. 16, Jonesboro, paved street (13 miles) and designed storm sewers and paving (asphalt on concrete base) (total construction cost \$354 000). 1919 to date acted as Chf. Engr. and designed some drainage districts for Boards of Comms. of Drainage Districts, Nos. 14, 15, 19-21 and 25-28, Craighead County (total \$921 000) and No. 1, Greene and Craighead County (\$50 000), also Improvement Dists. No. 1, Nettleton (paving and walk, \$20 000) and Nos. 1 and 2, Walnut Ridge (paving, \$160 000) and since 1926 as Chf. Engr. designed and supervised levee and drainage system (\$500 000) for Bay and St. Francis Drainage Dist. No. 29 and construction of storm sewers (\$235 000) for Jonesboro Storm Sewer and Drainage Dist. No. 30. Since 1917 also City Engr., Jonesboro, Ark., in charge of streets and drainage. *TT 14: P 14: RC 14: D 14.* Refers to L. T. Berthe, A. S. Fry, A. E. Heagler, L. L. Hidingler, J. R. Rhyne, W. F. Turner.

688

(8) COLLINS, WILLIAM LEIGHTON, 1210 Broadway, Highland, Ill. Graduating student awarded Central Illinois Section prize. (Age 22. Born Highland, Ill.) 1928 B. S., Univ. of Ill. TT 4: P 4. Refers to H. E. Babbitt, J. S. Crandall, H. Cross, J. J. Doland, W. C. Huntington, C. C. Wiley.

689

(1) COLVIN, GEORGE FOSTER, 184 Claremont Ave., New York City. (Age 27. Born Melville, Mont.) 1928 B. S. in Civ. Eng., Cooper Union Inst. Tech. TT 4: P 4. Refers to H. R. Codwise, F. E. Foss, G. Morrison.

690

(4) CONNELL, LEO FRANCIS, 601 Rodney St., Wilmington, Del. (Age 23. Born Wilmington, Del.) 1925 B. S. in C. E., Univ. of Del. TT 4: P 4. June to Nov. 1925 and Feb. 1926 to Jan. 1927 Draftsman, American Bridge Co., Pencoyd, Pa., detailing office building steel. TT 0.7: SP 0.7. Nov. 1925 to Feb. 1926 Transitman on subdivision work in Florida. TT 0.2: SP 0.2. Feb. to April 1927 Draftsman, United Gas Improvement Contr. Co., on industrial buildings. TT 0.1: SP 0.1. April 1927 to date Draftsman, Bridge Dept., Reading Co. TT 0.6: SP 0.6. TT 5.5: SP 1.5: P 4. Refers to T. A. Coffin, R. J. Lawrence.

691

(2) CONTRERAS, MARIANO JESUS, 44 Ivy St., Boston, Mass. (Age 23. Born Caracas, Venezuela.) Ph. B., Central Univ. of Venezuela. 1928 B. S., Mass. Inst. Tech. TT 4: P 4. Refers to C. B. Breed, C. M. Spofford.

692

(8) COOPER, DONALD LEO, 314 Elm St., Elgin, Ill. (Age 23. Born Elgin, Ill.) 1928 B. S., Coll. of Eng., Univ. of Ill. TT 4: P 4. Refers to H. Cross, J. J. Doland, W. C. Huntington, M. S. Ketchum, G. W. Pickels, T. C. Shedd, C. C. Wiley.

693

(8) CORDES, HARRY HENRY, 5950 Fillmore St., Chicago, Ill. (Age 23. Born German Valley, Ill.) 1928 B. S., Univ. of Ill. TT 4: P 4. Oct. 1917 to Jan. 1918, Sept. 1920 to Sept. 1921 (while student) and June 1922 to Feb. 1924 with C. H. Kreiling, Civ. Engr., Havana, Ill., as Inspector, Rodman, Chalmers, Instrumentman, Draftsman and Designer on paving, sewer and levee construction, etc. Sept. 1921 to June 1922 (while student) Draftsman, Farm Mechanics Dept., Univ. of Illinois. TT 0.9: SP 0.9. TT 4.9: SP 0.9: P 4. Refers to J. J. Doland, W. C. Huntington.

694

(7) CORSON, HAROLD HAWLEY, 304 West Maple Ave., Birmingham, Mich. (Age 41. Born Birmingham, Mich.) Registered Civ. Engr., State of Michigan. 1907 B. S. in C. E., Univ. of Mich. TT 4: P 4. June to Oct. 1907 Inspector on construction, Oct. 1907 to Feb. 1908 Laboratory Asst., physical testing, Feb. to Nov. 1908 Inspector, Nov. 1908 to Aug. 1909 Chf. Inspector and Aug. 1909 to June 1910 Asst. Div. Engr., on construction, all for Detroit River Tunnel. TT 2.5: SP 0.7: P 1.8: RC 0.8. March to July 1911 Instrumentman, U. S. Reclamation Service, Klamath Falls, Ore., on surveys. TT 0.3: P 0.3. July to Nov. 1911 Chf. of Party for County Engr., Klamath Falls, on surveys and plans. TT 0.4: P 0.4: RC 0.4: D 0.1. May to Dec. 1912 Office Engr., California Oregon Power Co., Yreka, Cal., on design of transmission lines. TT 0.6: P 0.6: RC 0.6: D 0.6. Feb. to Oct. 1913 Chainman and Levelman, California Highway Comm., on location. TT 0.4: SP 0.4. Feb. to Aug. 1914 and May 1922 to Aug. 1923 in private practice on construction. TT 1.8: P 1.8: RC 1.8: D 0.4. Aug. 1914 to March 1915 Draftsman, Ford Motor Co., Detroit, on building design. TT 0.6: P 0.6. March to Sept. 1915 and March 1916 to Jan. 1917 Engr. of Standards, Wilson Body Co., Detroit. TT 1.3: P 1.3: RC 1.3: D 0.5. Sept. 1915 to March 1916, Jan. to Aug. 1917 and March to Nov. 1919 Engr. of Accounting Dept., Detroit Trust Co., on inventory and cost accounting and (after March 1919) on war contracts settlement. TT 1.8: P 1.8: RC 1.8. Aug. to Dec. 1917 Locating Engr., Detroit Constr. Co., Pontiac, Mich., on electric railway location. TT 0.3: P 0.3: RC 0.3. Dec. 1917 to Oct. 1918 1st Lieut. and Oct. 1918 to March 1919 Capt., 30th Engrs., U. S. Army, field work in United States and France. TT 1.3: P 1.3: RC 1.3. Nov. 1919 to May 1922 Engr. of Standards, Towson Body Co. TT 2.5: P 2.5: RC 2.5: D 1. Aug. to Oct. 1923 Chf. of Party on location, Oct. 1923 to May 1924 Office Engr. on design, and May 1924 to Dec. 1927 Field Engr. on construction and design, Michigan State Highway Dept., Pontiac. TT 4.4: P 4.4: RC 4.4: D 2.1. Dec. 1927 to date Village Engr., Birmingham, Mich. TT 0.3: P 0.3: RC 0.3: D 0.2. TT 22.5: SP 1.1: P 21.4: RC 15.5: D 4.9. Refers to J. B. Jewell, M. Osgood, E. H. Pate, W. C. Russell, W. W. Tefft.

695

(1) **COSGROVE, FRANK HESTER**, Light and Power, Caixa de Correio a, Sao Paulo, Brazil. (Age 23. Born Worcester, Mass.) 1926 B. S., Worcester Pol. Inst. *TT 4: P 4*. 1926 to date successively Draftsman (Structural) with Stone & Webster Inc., Structural Designer, with New England Power Constr. Co., and with Canadian Gen. & Finance Co. *TT 1.5: SP 0.5: P 1: TT 5.5: SP 0.5: P 5*. Refers to C. M. Allen, R. W. Burpee, A. W. French, J. W. Howe.

696

(2) **COTTON, LINWOOD SUMNER**, 36 Morton St., Westbrook, Me. (Age 22. Born Westbrook, Me.) 1928 B. S., Univ. of Me. *TT 4: P 4*. Refers to H. S. Boardman, E. H. Sprague.

697

(10) **COURTER, JOHN WAYNE**, 357 North Watkins St., Memphis, Tenn. (Age 21. Born Mt. Carmel, Ill.) 1928 B. S. in C. E., Univ. of Tex. *TT 4: P 4*. Refers to E. C. H. Bantel, J. A. Focht, A. T. Granger, T. U. Taylor.

698

(1) **CRISTOFALO, CHARLES STEVEN JOHN**, Pleasantville, N. Y. (Age 20. Born Thornwood, N. Y.) 1928 B. S., Mass. Inst. Tech. *TT 4: P 4*. Refers to J. B. Babcock, 3d, C. M. Spofford.

699

(8) **CROM, ARTHUR SULLIVAN**, Dixon, Ill. (Age 22. Born Coleta, Ill.) 1928 B. S. in Civ. Eng., Univ. of Ill. *TT 4: P 4*. Refers to H. Cross, W. C. Huntington, T. C. Shedd.

700

(8) **DANIELS, MARCELL DEETS**, 417 North Madison, Peoria, Ill. (Age 23. Born Pittsburg, Kans.) 1928 B. S. in C. E., Univ. of Ill. *TT 4: P 4*. Refers to E. E. Bauer, H. Cross, W. C. Huntington, G. W. Pickels, J. Vawter.

701

(1) **DAVIDSON, FRANK ALBERT**, 320 East 196th St., New York City. (Age 31. Born Brooklyn, N. Y.) Has completed equivalent of 3 years of Civ. Eng. course at Brooklyn Polytechnic Inst. (evenings) Nov. 1916 to July 1920 (except June to Dec. 1918 with U. S. Navy) with Harris Structural Steel Co., New York City, as Draftsman, on structural detailing, estimating, etc., and (4 months) Asst. to Supt. of erection for dirigible balloon hangar, Langley Field, Va. *TT 1.5: SP 1.5*. Aug. 1920 to May 1921 with Frederick Snare Corporation, New York City, drafting for contracting engineers, including detailing structural steel and reinforced concrete and standardizing equipment. *TT 0.5: P 0.5*. June 1921 to date with Edward Corning Co., New York City, 2 years as Draftsman, some design of structural members, checking and approving subcontractors' plans and details, including structural steel drawings, etc., 3 years Asst. to Engr. in Chg. of Constr., making independent solutions of field problems, assisting in design and redesign of structural steel, supervising installation of reinforced concrete, and since June 1926 Supt. of Constr., having complete supervision of materials, workmanship and progress, designing in steel, concrete and wood, etc. *TT 6: SP 1: P 5: RC 2: D 2. TT 8.1: SP 3.1: P 5: RC 2: D 2*. Refers to A. N. Aeryns, H. R. Codwise, H. P. Hammond, C. W. Hudson, E. E. Seelye, E. J. Squire.

702

(15) **DAVIDSON, NORMAN BENTLEY**, 822 Frost National Bank Bldg., San Antonio, Tex. (Age 27. Born Eagle Lake, Tex.) 1918 to 1920 student, Agricultural and Mechanical Coll. of Texas. *TT 1: P 1*. Summers 1916-1920 Rodman and Chainman on surveys and irrigation projects, with County Surveyor, Colorado County, Tex. Sept. 1920 to Feb. 1928 with City of Houston, Tex., engaged as follows: Sept. 1920 to Oct. 1921 Rodman, Chainman and Instrumentman; Oct. 1921 to May 1922 Jun. Engr. in charge of paving party; staking streets; May 1922 to May 1923 Asst. Engr. on topography and staking streets for construction; May 1923 to Oct. 1925 Paving Supervisor in charge of inspection and construction; Oct. 1925 to Feb. 1928 Asst. Engr. in charge of field engineers, inspectors and design of plans and specifications of paving construction, estimates, etc. *TT 7.4: SP 0.8: P 6.6: RC 5.2: D 2.2*. Feb. 1928 to date with Texas Rock Asphalt Co., as Engr. in charge of sales, promotion, design of plans and specifications for town and city works and engineering work at rock asphalt mines. *TT 0.4: P 0.4: RC 0.4: D 0.4. TT 8.8: SP 0.8: P 8: RC 5.6: D 2.6*. Refers to A. S. Hadley, J. C. McVea, J. A. Norris, L. T. Peden, A. P. Rollins, L. H. Schlom.

703

(6) **DAVIDSON, ROSCOE ALEXANDER**, 14 Hertz St., Warren, Pa. (Age 23. Born Olean, N. Y.) 1928 B. S. in C. E., Univ. of Mich. *TT 4: P 4*. June 1927 to Jan. 1928 Inspector, Pennsylvania Dept. of Highways, on bridge construction. *TT 0.3: SP 0.3. TT 4.3: SP 0.3: P 4*. Refers to J. H. Cissel, L. M. Gram, G. W. Phillips, R. H. Sherlock, C. O. Wisler.

704

(6) DAVIS, EDWARD THOMAS, 701 East Railroad Ave., Verona, Pa. (Age 30. Born Verona, Pa.) 1928 Diploma in Civ. Eng., Carnegie Inst. of Technology (Night Course). June 1917 to May 1921 Detail Draftsman successively with Edgewater Steel Co., Oakmont, Pa., on steel mill construction, Geo. J. Hagen Furnace Engrs., Pittsburgh, Pa., on ash conveyor and furnace details, Bollinger-Andrews Constr. Co., Verona, Pa., on structural plate and tank details and Wm. B. Scaife & Sons Co., Oakmont, on water-purification plants and concrete details. *TT 1.6: SP 1.6.* Dec. 1921 to March 1922 Draftsman-Checker (Structural), glass plant construction, Bollinger-Andrews Constr. Co. *TT 0.2: P 0.2.* March 1922 to date with The J. N. Chester Engrs., Pittsburgh, until Oct. 1924 as Draftsman on steel and concrete design and detail for water-works and sewage-disposal plants, then Res. Engr. on construction of sewage-disposal and water-softening plants, and since Sept. 1925 Computer and Designer on sewage-disposal and water-purification plants and boiler houses and pump stations. *TT 6.4: P 6.4: RC 2.9: D 2.9. TT 8.2: SP 1.6: P 6.6: RC 2.9: D 2.9.* Refers to J. T. Campbell, J. N. Chester, D. E. Davis, C. D. Foight, A. D. Keagy, J. F. Laboon, C. B. Stanton.

705

(13) DAVIS, HARMER ELMER, 2531 Channing Way, Berkeley, Cal. Graduating student awarded San Francisco Section Prize. (Age 23. Born Rochester, N. Y.) 1928 B. S., Coll. of Civ. Eng., Univ. of Cal. *TT 4: P 4.* Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, F. S. Foote, C. G. Hyde, G. E. Troxell.

706

(10) DAWSON, LOUIS YOUNG, Jr., 13 Church St., Charleston, S. C. (Age 29. Born Charleston, S. C.) Registered Civ. Engr., State of South Carolina. 1920 B. S. in C. E., Ga. School of Tech. *TT 4: P 4.* July 1920 to Feb. 1923 Asst. Engr. on maintenance, Baltimore & Ohio R. R., at Seymour and Washington, Ind., and Cincinnati, Ohio. *TT 1.2: SP 1.2.* Feb. 1923 to date member of firm, Dawson Eng. Co., Inc., Charleston, S. C., engineering and contracting. *TT 5.4: P 5.4: RC 3: D 1. TT 10.6: SP 1.2: P 9.4: RC 3: D 1.* Refers to J. H. Dingle, J. E. Gibson, J. C. Oakes, J. L. Parker, F. L. Stuart, B. M. Thomson.

707

(2) DAYTZ, ALEXANDER BARNETT, 86 Fayston St., Boston, Mass. (Age 24. Born Vilna, Russia.) 1928 B. S., Mass. Inst. Tech. *TT 4: P 4.* Refers to H. K. Barrows, W. M. Fife, E. Mirabelli, C. M. Spofford, C. H. Sutherland.

708

(3) DE FOREST, GEORGE PARMENTER, 17 Myrtle Ave., Troy, N. Y. (Age 25. Born Buffalo, N. Y.) 1925 C. E., 1926 M. C. E., and 1928 Doc. Eng., Rens. Pol. Inst. *TT 4: P 4.* Refers to E. R. Cary, L. W. Clark, H. B. Compton, T. R. Lawson, W. W. Rousseau.

709

(1) DEL BOURGO, JACOB JOSEPH, 1431 Broadway, New York City. (Age 33. Born Yokohama, Japan.) Licensed Engr., New York State. 1924 C. E., Cornell Univ. *TT 4: P 4.* April 1911 to May 1912 Tracer, with Thomas Kershaw, Cons. Engr., Kobe, Japan, drafting, etc. *TT 0.6: SP 0.6.* Summer 1923 Jun. Asst., New York State Transit Comm., New York City, field work. June 1924 to March 1926 Structural Draftsman, Designer and Checker on subway design, in charge of squad, Board of Transportation, New York City. *TT 1.7: P 1.7: RC 0.7.* April 1926 Structural Draftsman, Westchester County Park Comm., Bronxville, N. Y. *TT 0.1: P 0.1.* May to Dec. 1926 with Dwight P. Robinson & Co., Inc., New York City, drafting and designing reinforced concrete. *TT 0.7: P 0.7.* Dec. 1926 to Nov. 1927 with Knickerbocker Ice Co., New York City, designing ice manufacturing plants and miscellaneous buildings. *TT 0.9: P 0.9: RC 0.4: D 0.5.* Nov. 1927 to date Cons. Engr. *TT 0.5: P 0.5: D 0.5. TT 8.5: SP 0.6: P 7.9: RC 1.2: D 0.5.* Refers to F. A. Barnes, V. Christian, J. A. A. Connelly, J. Feld, H. N. Ogden, C. L. Weir.

710

(1) DeLUNA, ALBERT EDWARD, 128 East Twenty-Third St., New York City. (Age 25. Born New York City.) 1928 B. S. in C. E., Cooper Union. *TT 4: P 4.* Refers to F. E. Foss, J. P. J. Williams.

711

(8) DILLON, CARL EDGAR, 466 First St., Wood River, Ill. (Age 25. Born Marion, Ill.) 1928 B. S. in Civ. Eng., Univ. of Ill. *TT 4: P 4.* Refers to H. E. Babbitt, H. Cross, J. J. Doland, W. C. Huntington, T. C. Shedd.

712

(1) DILLOUGHERY, AUSTIN PAUL, 309 East Eighty-Fifth St., New York City. (Age 22. Born Ennistymon, Ireland.) Received Final Diploma in Mech. Eng., City and Guilds Inst., London, England. 1928 B. S., Cooper Union. *TT 4: P 4.* Aug. 1925 to July 1927 Drafts-

man, Graham & Norton Co., New York City, on drawing and design of elevator equipment and accessories, signals and pneumatic devices. July 1927 to date Structural Detailer with Post & McCord, New York City. *TT 4: P 4.* Refers to F. E. Foss, G. Morrison, J. P. J. Williams.

713

(2) **DISARIO, GABRIEL MICHAEL ANTHONY**, 95 Lexington St., East Boston, Mass. (Age 21. Born East Boston, Mass.) 1928 B. S., Mass. Inst. Tech. Summer 1927 Senior Engr.'s Asst., Massachusetts Dept. of Public Utilities, on valuation of Boston Elev. Ry. *TT 4: P 4.* Refers to C. M. Spofford, R. G. Tyler.

714

(12) **DOBROVOLSKY, ALEXANDER N**, 4554 Nineteenth Ave., N. E. Seattle, Wash. (Age 28. Born Tiekovo, Russia.) 1928 B. S. in C. E., Univ. of Wash. *TT 4: P 4.* 1919 to 1922 Officer in charge of various engineering and fortification works, Russian Army. 1927 (while student) Assembler, Wallace Bridge & Structural Steel Co., Seattle, Wash., assembling of steel trusses and plate girders. 1928 (while student) Draftsman and Computer, State of Washington, pier design and crib estimates. *TT 2.5: SP 0.5: P 2: RC 2. TT 6.5: SP 0.5: P 6: RC 2.* Refers to C. W. Harris, J. Jacobs, C. C. May, C. C. More, R. H. Ober.

715

(9) **DONISI, JOE DANTE**, North and Sutphin Sts., Middletown, Ohio. Graduating student awarded Dayton Section prize. (Age 21. Born Cincinnati, Ohio.) 1928 B. Sc. in C. E., Univ. of Dayton. *TT 4: P 4.* Refers to C. S. Bennett, B. T. Schad.

716

(6) **DRAKE, CHESTER FRANCIS**, 226 Delafield Ave., Aspinwall, Pa. (Age 54. Born Cambridge, Mass.) 1898 B. S., Mass. Inst. Tech. Doc. Sci., Duquesne Univ., Pittsburgh, Pa. *TT 4: P 4.* Aug. 1898 to Jan. 1901 Civ. Engr. with Charlgs W. Leavitt, Jr., until March 1899 on design and in charge of construction of two estates at Hempstead, N. Y., including water supply, sewerage, road and building construction and survey; April-Sept. 1899 designing and in charge of construction of steel grandstand, Empire City Race Track, Yonkers, N. Y.; Oct. 1899 to July 1900 in charge of branch office at Pittsfield, Mass. Aug. 1900-Jan. 1901 in charge of surveys and designs for two estates at Lake George, N. Y., and one at Gladstone, N. J. *TT 2.5: P 2.5: RC 2.5: D 2.5.* Jan. 1901 to Aug. 1904 with Bureau of Filtration, Philadelphia, Pa., until July 1902 as Draftsman and Designer on filter plants, then Asst. Engr. on field work for construction of distributing systems. *TT 3.6: P 3.6: RC 1: D 1.6.* Aug. 1904 to Nov. 1907 Chf. Engr. and Gen. Supt. for Charleroi, Donora and Kensington (Pa.) Water Companies, and City Water Works Co. of Sebring, Ohio. *TT 3.3: P 3.3: RC 3.3: D 0.1.* Nov. 1907 to Feb. 1908 San. Engr., Pennsylvania State Dept. of Health, on design, sanitary surveys and examination of plans. *TT 0.3: P 0.3: RC 0.3: D 0.2.* Feb. 1908 to date Div. Supt., Filtration Div., Bureau of Water, Pittsburgh, on maintenance and operation and in responsible charge of design and construction, including waterproofing 10 acres of sand filters (June to Dec. 1911), and preliminary water-treatment (July 1911 to June 1913), Pittsburgh Filtration Plant, and partial reconstruction of preliminary system of filtration, City of Pittsburgh, Pa. (June 1926 to Nov. 1927). *TT 20.3: P 20.3: RC 3.1: D 1. TT 34: P 34: RC 10.4: D 6.3.* Refers to T. C. Atwood, E. E. Bankson, J. C. Chester, J. H. Gregory, W. C. Hawley, A. Hazen, F. F. Longley, C. M. Reppert, M. R. Scharff, F. H. Snow, J. D. Stevenson, W. L. Stevenson, G. F. Swain, S. M. Van Loan, R. S. Weston, T. H. Wiggin.

717

(4) **DRUDING, HENRY ANTHONY**, 114 Glencoe Rd., Upper Darby, Pa. (Age 20. Born Philadelphia, Pa.) 1928 B. S. in C. E., Drexel Inst. Sept. 1925 to Jan. 1926 and March to June 1926 Rodman with Over & Tingley, Civ. Engrs., Upper Darby, Pa. Sept. 1926 to Jan. 1927 and June to Sept. 1927 Transmittan with Joseph A. Baker, Civ. Engr., Hammonton, N. J. *TT 4: P 4.* Refers to H. L. Bowman, S. J. Leonard.

718

(1) **DRUMMOND, TED GIRARD**, 323 West Seventy-Fifth St., New York City. (Age 27. Born Jeffersonville, Ind.) 1921 Transmittan and Chf. of Party on drainage, Harrington, Howard & Ash, Engrs., Kansas City, Mo. *TT 0.3: P 0.3.* 1922 to 1923 Transmittan and Surveyor, with Greeley-Howard-Norlin Co. (11 months) and Emmet Kennedy (5 months), Surveyors, Chicago, Ill. *TT 1.4: P 1.4: RC 0.5.* 1924 Transmittan and Chf. of Party with Burns & McDonnell, Cons. Engrs., Kansas City, Mo. *TT 0.7: P 0.7.* 1924 to 1925 Constr. Engr., O. M. Gwin Constr. Co., New Orleans, La., on 14-story building. *TT 0.7: P 0.7.* Feb. to Oct. 1925 Res. Engr., San Blas Development Corporation, Colon, Panama, on wharf and railroad construction. *TT 0.7: P 0.7: RC 0.7.* Nov. 1925 to Oct. 1926 with Leo. J. Ehrhart, Inc., New York City, as Transmittan on surveys, sewers and subdivisions, and Concrete Inspector on road building. *TT 1: P 1.* Oct. 1926 to Feb. 1928 Transmittan and

Field Boss, R. W. Hebard & Co., Inc., New York City, on highway location, Carretera al Mar contract, Colombia. *TT 1.4: P 1.4: RC 1.4. TT 6.2: P 6.2: RC 2.6.* Refers to J. H. Caton, 3d, L. J. Ehrhart, G. L. Govin, R. W. Hebard, H. G. Hunter, A. H. Kindrick.

719

(8) DUNFORD, JOHN MORELAND, 211 North Central Ave., Chicago, Ill. (Age 21. Born Chicago, Ill.) 1928 B. S., Univ. of Ill. *TT 4: P 4.* Refers to H. Cross, J. J. Doland, W. C. Huntington, T. C. Shedd, C. C. Wiley.

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(4) EBERZ, FRED LUDWIG, 2445 North Twenty-Ninth St., Philadelphia, Pa. (Age 23. Born Philadelphia, Pa.) 1928 B. S. in C. E., Drexel Inst. *TT 4: P 4.* Refers to H. L. Bowman, S. J. Leonard.

721

(5) ECKER, JOHN BEARD, P. O. Box 819, Lexington, Va. (Age 21. Born Washington, D. C.) 1928 B. S. in Civ. Eng., Washington and Lee Univ. *TT 4: P 4.* Refers to J. A. Anderson, J. H. Hanna, W. T. Lyle.

722

(4) EISENLOHR, WILLIAM STEWART, Jr., 209 West Mt. Pleasant Ave., Philadelphia, Pa. (Age 20. Born Philadelphia, Pa.) 1928 B. S. in C. E., Univ. of Pa. *TT 4: P 4.* Refers to W. H. Barton, Jr., H. C. Berry, F. P. Wiltmer.

723

(4) ELLIS, ROBERT RICHARDSON, Jr., P. O. Box 597, Wilmington, Del. (Age 27. Born New Orleans, La.) 1926 B. S., Mass. Inst. Tech. *TT 4: P 4.* June to Sept. 1920, Dec. 1920 to Dec. 1921, and June to Sept. 1924 with William E. Dearborn, Chf. Engr., Ward Line S. S. Co., on San José Docks, inspecting pile driving, concrete placing, line, grade, some supervision, etc., in 1924 being Asst. to Chf. Engr. on construction, etc. *TT 0.7: SP 0.7.* Oct. to Dec. 1920 Instrumentman on railroad survey, Camaguey, Cuba. *TT 0.1: SP 0.1.* Feb. to Sept. 1923 Asst. Civ. Engr., Punta Alegre Sugar Mill, being Chf. of parties on railroad location and construction, drainage layout, etc. *TT 0.7: P 0.7: RC 0.7.* Sept. 1925 to June 1926 Office Engr., Underwriters' Laboratories, Boston, Mass., mechanical engineering, including factory inspection of approved devices and general supervision of inspection of factories. *TT 0.8: P 0.8: RC 0.5.* Aug. 1926 to Dec. 1927 with Packard Elec. Co., Warren, Ohio, on design work of distribution and small power transformers. *TT 1.3: P 1.3: D 1.3.* Dec. 1927 to date with Frederick Snare Corporation, New York City, until May 1928 on design of concrete buildings, wharves and piers, and since then Engr. on New Market Bridge, Wilmington, Del. *TT 0.7: P 0.7: RC 0.1: D 0.4. TT 8.3: SP 0.8: P 7.5: RC 1.3: D 1.7.* Refers to E. R. Akers, W. G. Ames, M. J. Backus, R. H. Cady, G. P. Seeley, Jr., C. M. Spofford, C. H. Sutherland.

724

(13) EMMETT, WILLIAM EDWIN, 348 San Carlos Ave., Piedmont, Cal. (Age 42. Born Lawrence, Kans.) 1910 B. S. in C. E., Univ. of Kans. *TT 4: P 4.* Sept. 1909 to Feb. 1913 Asst. Engr., Missouri Valley Bridge & Iron Co., acting as Draftsman and Checker on bridge detail, some design, also details on caissons, cribs, etc. *TT 1.7: SP 1.7.* Feb. 1913 to July 1924 Draftsman, Checker, Squad Boss and Contr. Engr., Kansas City (Kans.) Structural Steel Co., on structural steelwork. *TT 8.2: SP 3.2: P 5: RC 2.5: D 5.* Aug. 1924 to April 1928 with The Moore Dry Dock Co., Oakland, Cal., one year as Estimator, then Structural Engr. in charge of structural steel operations, including supervision of drafting, engineering, designing, purchasing of materials and contracting. *TT 3.7: P 3.7: RC 2.7: D 3.5.* April 1928 to date with American Inst. of Steel Constr., as Dist. Engr., Dist. 10 (California, Oregon, Washington, Idaho, Nevada, Utah and Arizona), in charge of operations (under Chf. Engr.). *TT 0.2: P 0.2: RC 0.2: D 0.2. TT 17.8: SP 4.9: P 12.9: RC 5.4: D 8.7.* Refers to E. H. Connor, C. Derleth, Jr., W. H. Jones, L. H. Miller, G. A. Posey, H. A. Rice.

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(1) EVERHART, CALVIN CECIL, 421 West 118th St., New York City. (Age 27. Born Moville, Iowa.) Special student, Iowa State Coll. (Jan. 1922 to June 1923). Student, Milwaukee, Div., Univ. of Wisconsin (Feb. 1924 to June 1925), and Armour Inst. Night School (1926 to 1928). 1917 to 1922 and Oct.-Dec. 1923 on various construction, 2 years in charge of rural building construction in Iowa, 10 months Mechanic on highway bridge and paving work, and building construction, and (1923) Asst. to foremen and superintendents on New Nebraska State House. *TT 5: SP 3.* June to Oct. 1923 Superv. Engr. for M. A. Everhart, Moville, Iowa, in full charge of design and erection of 45-car public garage, drew plans, made computations, detailed and supervised erection of semi-fireproof building. *TT 0.3: P 0.3: RC 0.3: D 0.3.* April to Nov. 1926 Constr. Inspector, South Park Comm. of Chicago, on open-well bed rock caisson work; bridge foundations, retaining walls, slabs and pylon foundations (all heavy reinforced concrete work). *TT 0.3: SP 0.3.* March 1927 to March

1928 Inspector, American Bureau of Inspection and Tests, in charge of placing heavy foundations and fireproof superstructures, two buildings (17 and 22 stories), a garage, an apartment hotel and a department store. *TT 1: P 1: RC 1. TT 4.6: SP 3.3: P 1.3: RC 1.3: D 0.3.* Refers to E. W. Bullard, J. H. Griffith, C. R. Hoyt, S. Klein, E. B. Wilson.

726

(14) EXUM, JAMES POWERS, 2759 Charlotte, Kansas City, Mo. (Age 27. Born Mobeetie, Tex.) 1922 B. S. in Civ. Eng., Univ. of Tex. *TT 4: P 4.* Oct. 1922 to Oct. 1923 Draftsman, Harrington, Howard & Ash, Kansas City, Mo. *TT 0.5: SP 0.5.* Oct. 1923 to Sept. 1924 Res. Engr. on supervision of construction of Blue River Dam, Kansas City, Mo. *TT 0.9: P 0.9: RC 0.9.* Sept. 1924 to Oct. 1925 Asst. to Bridge Engr., Texas State Highway Dept., design of fixed and movable bridges, preliminary layouts and estimates. *TT 1.1: P 1.1: RC 1.1: D 0.9.* Oct. 1925 to date with Harrington, Howard & Ash, until Nov. 1927 Designer and Squad Foreman, designing fixed and movable bridges, vertical lift spans, simple trunnion and rolling lift bascules, and since Nov. 1927 Chf. Draftsman, in charge of detailing fixed and movable bridges. *TT 2.8: P 2.8: RC 2.8: D 1.8. TT 9.3: SP 0.5: P 8.8: RC 4.8: D 2.7.* Refers to L. R. Ash, A. T. Granger, C. M. Greer, C. S. Harper, E. E. Howard, H. C. Tamm, G. G. Wickline.

727

(4) FEIN, HERMAN THEODORE, 352 East Main St., Norristown, Pa. (Age 23. Born Philadelphia, Pa.) 1928 B. Sc. in Civ. Eng., Drexel Inst. June 1924 to Jan. 1925 with Pennsylvania State Highways as Chainman and Rodman, some instrument work. June 1925 to Jan. 1926 Rodman, Stone & Webster, Inc., Philadelphia, Pa. *TT 4: P 4.* Refers to H. L. Bowman, S. J. Leonard.

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(7) FELIX, HENRY STEWART, 220 South Newport Ave., Detroit, Mich. (Age 23. Born Harrisburg, Pa.) 1928 B. S. E., Univ. of Mich. *TT 4: P 4.* Refers to L. M. Gram, R. H. Sherlock.

729

(8) FERGUSON, RANDON, 301 Laboratory Applied Mechanics, Urbana, Ill. (Age 28. Born Tuscola, Ill.) 1924 B. S., Univ. of Ill. *TT 4: P 4.* Oct. 1919 to date (except May to Aug. 1922 Chainman, Atchison, Topeka & Santa Fe R. R.) at Univ. of Illinois, until June 1921 (part of time) as Computer on concrete tests, Laboratory of Applied Mechanics, reading records, track stress investigation, reduction of data for track stress report, etc., from June 1921 to May 1922 and Aug. 1922 to June 1924 Asst. on laboratory tests and preparation of material for report on stresses in railroad track, etc., and since June 1924 Asst. Engr. on investigation of stresses in railroad track, making field tests of track, laboratory tests of rail joint and track fittings and analyses of data. *TT 5: P 5: RC 2. TT 9: P 9: RC 2.* Refers to E. E. Cress, J. O. Draffin, M. L. Enger, T. M. Jasper, M. S. Ketchum, L. J. Larson, J. deN. Macomb, F. E. Richart, A. N. Talbot, W. M. Wilson.

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(14) FIETSAM, RAYMOND KUHN, 3660 Juniata St., St. Louis, Mo. (Age 25. Born St. Louis, Mo.) 1925 B. S. in Civ. Eng., Univ. of Mo. *TT 4: P 4.* Jan. 1925 to April 1927 Draftsman and Office Engr., Elbring Surveying Co., Clayton, Mo., on subdivision layout and design of sewers, pavements and grading. *TT 1.9: SP 0.4: P 1.5: RC 0.5: D 1.* April to Nov. 1927 Res. Engr., Edward Flad & Co., St. Louis, Mo., on construction of water-purification plant and distribution-system extension. *TT 0.7: P 0.7: RC 0.7.* Dec. 1927 to March 1928 on building design and bulk depot plant layout, Roxana Petroleum Corporation, St. Louis. *TT 0.3: P 0.3: D 0.3.* March 1928 to date Office Engr., W. A. Fuller Co., St. Louis, on design of municipal improvements. *TT 0.3: P 0.3: D 0.3. TT 7.2: SP 0.4: P 6.8: RC 1.2: D 1.6.* Refers to H. E. Frech, A. L. Hyde, H. A. LaRue, E. J. McCaustland.

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(10) FISHER, HARRY LE ROY, 1317 Chamberlain Ave., Mobile, Ala. (Age 45. Born Middle Grove, Ill.) Student in Civ. Eng., Valparaiso Univ. 1903 to 1904 Rodman, Southern Ry., acted as Instrumentman. *TT 0.4: SP 0.4.* 1904 to 1905 Draftsman for projected Cairo & Tennessee River R. R. at Wickliffe, Ky., also Instrumentman. *TT 0.4: SP 0.4.* 1905 to 1907 Locating Engr., being Chf. of Party about 9 months on projected Knoxville, Sevierville & New Port Ry., locating line west from Knoxville then on projected Tidewater Ry. from Birmingham to Gadsden, Ala. *TT 1.6: P 1.6.* July 1907 to Jan. 1908 Draftsman, Chf. Engr.'s office, Mobile & Ohio R. R., M. of W. Dept. *TT 0.5: P 0.5.* Jan. 1908 to Aug. 1909 private work, principally on surveys, subdivisions, railroad location for log roads, town platting and planning. *TT 1.7: P 1.7.* Aug. 1909 to Nov. 1911 Chf. of Party, U. S. Engr.'s Office, Jacksonville, Fla., on surveys for U. S. Ship Canal across Florida peninsula and investigations for locksites, foundations and drainage areas; also made investigations of Everglade drainage area. *TT 2.1: P 2.1.* Jan. 1912 to Dec. 1918 and April 1919 to Nov.

1920 with Mobile County, 1 year as Asst. to County Engr. on location and design of highways and bridges, and 7 years County Highway Engr. in charge of location and construction of roads, streets and bridges; designed bridges, constructed paved roads, having charge of paved highways. *TT 8: P 8: RC 7.* Dec. 1918 to April 1919 Asst. Engr., Chickasaw, Ala. *TT 0.4: P 0.4.* Nov. 1920 to date Asst. City Engr., Mobile, on design and construction of streets, sewers, water-works extensions, wharves, etc. *TT 7.5: P 7.5: RC 7.5.* *TT 22.6: SP 0.8: P 21.8: RC 14.5.* Refers to C. D. Batson, R. P. Boyd, J. B. Converse, W. Fennell, J. M. Garrett, D. F. Horton, G. L. Moulton, M. Nicholson, J. R. Peavy, R. L. Totten.

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(8) **FLICKINGER, LLOYD HENRY**, 910 Ontario St., Oak Park, Ill. (Age 24. Born Center Point, Iowa.) 1928 B. S. in C. E., Univ. of Iowa. *TT 4: P 4.* April to July 1925 Draftsman, Continental Oil Co., Denver, Colo. June to Oct. 1926 and May 1927 to June 1928 (while student) with City Engr.'s office, Iowa City, Iowa, as Gen. Office and Field Asst. on inspection of paving, plotting profiles, cross-sections, etc. (1926) and Asst. on plot and schedule work for sewer and paving, laying grades, etc. *TT 0.2: SP 0.2.* June 1928 to date Jun. Engr., San. Dist. of Chicago, Sewage-Treatment Plant Design Div., tracing, detailing, etc., for West Side treatment plant (Imhoff tank installation). *TT 0.1: SP 0.1.* *TT 4.1: SP 0.1: P 4.* Refers to A. H. Holt, I. P. Kane, R. B. Kittredge, B. J. Lambert, E. L. Waterman, L. C. Whittemore, S. M. Woodward.

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(1) **FOX, PETER WILLIAM**, 2805 University Ave., Bronx, New York City. (Age 24. Born New York City.) Graduate in Architecture, Mechanics Inst. 1 year student in concrete design, Coll. of City of New York. 1921 to date Concrete Detailer, Kalman Steel Co., New York City. *TT 5: SP 2: P 3: RC 1: D 2.* Refers to H. F. Butler, D. G. Fishbeck, H. Fougner, W. J. Kupec, M. P. Van Buren.

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(11) **FRAZIER, IRVIN POPE**, 912 Lincoln St., Boulder, Colo. Graduating student awarded Colorado Section prize. (Age 30. Born Galveston, Tex.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4.* Sept. 1920 to May 1922 Steno-Draftsman, Texas Co. of Mexico, Geological Dept., Tampico, Mexico. *TT 0.8: SP 0.8.* Jan. to Sept. 1919 Transitman, and March to Sept. 1926 Asst. Div. Engr. (Chf. of Survey Party), Texas Co., Cisco, Tex. *TT 0.9: SP 0.4: P 0.5: RC 0.5.* *TT 5.7: SP 1.2: P 4.5: RC 0.5.* Refers to R. L. Downing, F. R. Dungan, C. L. Eckel.

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(6) **FREEMAN, PERRY JOHN**, 3219 Latonia Ave., Dormont, Pittsburgh, Pa. (Age 47. Born Lilly Chapel, Ohio.) Registered Prof. Engr., State of Pennsylvania. 1907 B. S. in M. E., and M. E., Univ. of Ill. *TT 4: P 4.* 1907 to 1910 Instructor in Mech. Eng., Univ. of Pennsylvania, conducted steam-engine and boiler tests, designed and constructed steam-engine indicator calibrating device. *TT 3: P 3: D 0.5.* 1910 to 1912 in charge of Mech. Eng. Dept. Shops, Univ. of Illinois, in responsible charge of all instruction given in forge, pattern foundry and machine shops and purchase of equipment, change in design and location of apparatus. *TT 1.5: P 1.5: RC 1.5: D 0.5.* 1912 Asst. Mgr., Regulator Dept., H. Mueller Mfg. Co., Decatur, Ill., responsible for operation in absence of Mgr., being Shop Foreman in charge of production of pressure regulators for steam, gas, oil and water. *TT 0.5: P 0.5: RC 0.5.* 1912 to 1913 Asst. Erector, Browning Eng. Co., assembling locomotive cranes and steam shovels, work involved setting valves and testing steam boilers and engines and hoisting equipment. *TT 0.5: P 0.5.* 1913 to 1914 Mech. Engr., Gullett Cotton Gin Co., on design of cotton ginning machinery, making plans, specifications and designing installations for boilers, engines, air, chain and screw conveying machinery. *TT 1.4: P 1.4: D 1.4.* 1914 to 1916 Asst. Prof. of Applied Mechanics and Hydraulics, Kansas State Agricultural Coll., in charge of laboratories of applied mechanics and hydraulics; installed equipment for testing state highway materials. *TT 1.5: P 1.5: RC 1.5.* 1916 to 1923 Engr. of Tests, Pittsburgh (Pa.) Testing Laboratory, in responsible charge of testing in Pittsburgh and various branches, during World War purchased equipment and installed four complete physical and chemical testing laboratories, involving designing equipment for making special tests; devised new type of hydraulic testing machine for small specimens. *TT 7.3: P 7.3: RC 7.3: D 3.5.* 1923 to 1924 Cons. Engr. on studies of foundation for State Line Dam Hydraulic Project in Pennsylvania and West Virginia, involving loading tests in shafts, preliminary tests and reports in connection with selection of materials investigation as to effect of lignite in sand, etc. *TT 0.8: P 0.8: RC 0.8: D 0.2.* 1924 to date Chf. Engr., Bureau of Tests and Specifications, Allegheny Dept. of Public Works, being responsible for sub-contractors; supervised purchase of equipment for physical and chemical testing laboratories revised specifications for materials, method of construction, design of highways and correlated specifications to meet the requirements for all construction bureaus;

improvements completed or under construction include resurfaced and reconditioned highways (200 miles, approx. \$4 000 000) 41 bridges constructed (approx. \$21 500 000); vehicular (approx. \$1 500 000); new concrete and brick roads (145 miles, approx. \$13 500 000). *TT 4.3: P 4.3: RC 4.3: D 4.3. TT 24.8: P 24.8: RC 15.9: D 10.4.* Refers to N. F. Brown, B. C. Collier, V. R. Covell, S. Eckels, W. L. R. Haines, H. R. Hortenstine, C. M. Reppert, A. N. Talbot.

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(15) **FRIEDRICH, VICTOR**, 341 Milam Bldg., San Antonio, Tex. (Age 34. Born in Goliad County, Tex.) 1917 B. S. in Civ. Eng., Univ. of Tex. *TT 4: P 4.* May 1917 to July 1919 with U. S. Army, at Engr. Officers' Training Camp, Aug. 1917 commissioned 2d Lieut., and Sept. 1918 1st Lieut., Engrs. *TT 2: SP 0.2: P 1.8: RC 1.8.* July 1919 to May 1920 Levelman and Draftsman with County Engr., on highway work, culvert drafting, etc. *TT 0.8: P 0.8: RC 0.8.* May to Aug. 1920 with County Engr. as Engr. in charge of field party on preliminary highway surveys and Chf. of Party on construction. *TT 0.2: P 0.2: RC 0.2.* Aug. to Oct. 1920 Chf. of Party on surveys with J. A. Card, Mission, Tex. *TT 0.2: P 0.2: RC 0.2.* Nov. 1920 to Sept. 1921 Asst. Engr. with U. S. Constr. Q. M., on municipal survey of Brook and Kelley flying fields, laying concrete floors in hangars, calculation and survey of water supply system at Kelley Field. *TT 0.8: P 0.8: RC 0.8.* Sept. 1921 to Sept. 1925 Asst. Engr., later Asst. County Engr., Washington County, Tex., surveys, plans and construction of highways. *TT 4: P 4: RC 4: D 4.* Oct. 1925 to date Engr. and Surveyor for Walton & Arneson, on plans, calculations, surveys of subdivisions, streets, pipe lines, water supply and irrigation systems, maps. *TT 2.8: P 2.8: RC 2.8: D 2.8. TT 14.9: SP 0.2: P 14.7: RC 14.7: D 6.8.* Refers to E. P. Arneson, E. C. H. Bantel, C. T. Bartlett, J. S. Fenner, P. B. Tarrt, T. U. Taylor, R. H. Tompkins, A. Y. Walton.

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(1) **GALBRAITH, AUGUSTUS WILLIAM DE ROHAN**, City Council Offices, Christchurch, New Zealand. (Age 52. Born West Rainton, Durham, England.) 1889 to 1892 student, Regent Street Polytechnic School of Eng. and Architecture, Hampshire, England. *TT 1.5: SP 1.5: D 1.5.* 1892 to 1895 Pupil under A. W. Galbraith of Dublin and Southampton, on water supply, sewerage and drainage, construction and maintenance of highways, bridges, etc. *TT 1.5: P 1.5: D 1.5.* 1897 to 1909 with Borough Engr.'s Dept., Portsmouth, England, 6 years as Asst. Engr. and Surveyor, then Dist. Surveyor, on bridges, docks, additions to hospitals, repair and maintenance of roads, construction of streets, sewers and storm drains, house drainage, examining plans and inspecting buildings under erection, shore defence works, etc. *TT 9: SP 3: P 6: RC 1.1: D 0.9.* 1909 to 1914 Director of Public Works, Zanzibar Protectorate, British East Africa, on design and erection of new palace for Sultan (Rs. 75 000), prison (Rs. 138 000), government offices (Rs. 150 000) and laboratory, barracks, military hospital and magazines, markets, officers' quarters, courts, stores, asylum, police stations, etc., and repairs and maintenance of all government buildings. *TT 5: P 5: RC 5: D 2.* 1915 to 1918 with Royal Australian Navy, Works Dept. at Port Stephens Naval Base, New South Wales, collating engineering data, comprising surveys, borings, tidal ranges, currents, meteorological observations, reports on timber, stone, etc., until April 1916 as Civ. Engr., then Superintending Civ. Engr. and Officer-in-Chg. of all naval works in New South Wales, including Sydney Naval establishment, out-ports of Jervis Bay and Port Stephens. *TT 3: P 3: RC 3: D 2.* 1918 to 1920 with Iron and Steel Works, Brokenhill Proprietary Co. Ltd., Port Waratah, Newcastle, New South Wales, as Constr. Engr. and (after Oct. 1918) Civ. Engr. in charge of erection of new blast furnaces and repairs to blast furnace, etc.; submitted design for new offices, pattern store, three officers' residences, etc. *TT 2: P 2: RC 2.* 1920 to 1925 City Engr. and Quarry Mgr. to City Council, Perth, Western Australia, on preliminary layouts for general market scheme, erection Kerbstone Markets, including flyproof meat stalls and sanitary accommodation, grand stand, Leederville Oval, repairs to Council properties, etc., highways, subdivisional roads, rights of way, tramways (electric), railways, bridges, quarries, buildings, water supply, sewerage, drainage, etc.; also (1920 to 1925) at Univ. of Western Australia as Member of Convocation and of Faculty of Eng., Lecturer and Examiner on tropical sanitation. *TT 5: P 5: RC 5: D 4.* 1925 to date City Engr., Archt and Surveyor, Christchurch, New Zealand, also Member of Faculty of Eng., Canterbury Coll., School of Eng., Christchurch, on reports, plans, estimates, etc., for workers' dwellings, petrol filling stations, repairs and maintenance of public halls and libraries; Cathedral Square Improvement Scheme, parks; reports on reconstruction, maintenance, etc., of city's highways and bridges; railways, bridges, buildings, river control etc. (detailed statement of work forwarded with application). *TT 3: P 3: RC 3: D 3. TT 30: SP 6: P 24: RC 16.1: D 15.9.* Refers to H. E. Bellamy, R. W. Parkhurst, A. Tyndall. (Applies in accordance with Sec 1, Art. I. of the By-Laws).

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(8) **GAMET, MERRILL BARTLETT**, 557 Michigan Ave., Evanston, Ill. Graduating student awarded Illinois Section prize. (Age 23. Born Chicago, Ill.) B. S., and 1928 C. E., Northwestern Univ. Summer 1924 with Drafting Dept., National Biscuit Co., Evanston, Ill., on machine design. July 1926 to Oct. 1927 with U. S. Post Office, Evanston. *TT 4: P 4.* Refers to J. W. Alvord, A. S. Hathaway, J. A. Moss, W. D. Pence, C. L. Post.

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(10) **GARBER, DANIEL MASON**, 419 Stratford Rd., Winston-Salem, N. C. (Age 39. Born Washington, D. C.) Student, Polytechnic Preparatory School, Brooklyn, N. Y. (1906), Virginia Military Inst. (1906 to 1908) and Columbia Univ., School of Mines and Eng. (1908 to 1910) and night course in reinforced concrete design (1913 to 1914). Summers 1909 and 1910 Timekeeper and Material Clerk, on hospital buildings, U. S. Immigration Service, Ellis Island, and Kings Park, N. Y. 1910 to date with North-Eastern Constr. Co., Engrs. and Contrs., New York, as follows: 1910 to 1911 Clerk of Works on 12-story office building, New York City, and U. S. Barge Office, New York Harbor; 1911 to 1912 in drafting room and Office Estimator, Asst. Engr. of Constr. on subway connection and Manhattan Terminal of Brooklyn Bridge; 1912 to 1913 Chf. of Party and Engr., subway extension and Brooklyn approach to Manhattan Bridge; 1913 to 1914 in drafting room and Estimator; Supt. of Constr. on alterations and additions to New York Post Office; 1914 to 1915 Office Engr. in charge of superstructures for Shafts 11 and 21, Catskill Aqueduct, New York, and disposal works for 26th Ward, Dept. of Sewers, Brooklyn; 1915 to 1917 Res. Engr. in charge of construction, U. S. Customs House, Court House and Appraisers Stores, also (after 1916) Sprunt Memorial Hospital, Wilmington, N. C.; 1917 to 1919 Office Engr. in charge (after 1918) of construction of office and storage buildings 3 and 5, Governors Island, New York Harbor; Officers' Quarters, Ft. Jay, pier, Ft. Slocum, N. Y., additions to Marine Hospital, Stapleton, N. Y.; Visitors' House, Aberdeen Proving Grounds; 1919 to 1925 Constr. Mgr., New York Dist., having complete charge of buildings for Westchester Lighting Co., Rye and Pelham, N. Y., office buildings for Furness Withy Steamship Co., Bull Steamship Co., Upjohn Chemical Co., New York, and Hamburg American Line, New York, Inwood Substation and Waterside switchhouse and substation for New York Edison Co., pipe piling and substructure for power plant, New York Mutual Gas Light Co., First National Bank Bldg., Hudson, N. Y., and City National Bank Bldg., Binghamton, N. Y., buildings 1 and 3, New York Mutual Gas Light Co., U. S. Quarantine Station, Rosebank, N. Y., plant for Knickerbocker Ice Co., Rockville Center, N. Y., baggage and dormitory Buildings, U. S. Immigrant Station, Ellis Island, New York Harbor; since 1925 member of firm, being Res. Vice-Pres., in charge of North Carolina Dist., work (over \$1,000,000 annually) completed or under way includes Animal Industry Bldg. for State Coll., Raleigh, piling, substructure and superstructure for Carolina Theatre, Greensboro, Southern Ry. underpasses at Elm-Davie St. and Washington St., Greensboro, power house for Liggett & Myers Tobacco Co., Durham, 12 grade crossing eliminations for Southern Ry. and City of Greensboro (\$984,000), and City Hall Bldg., Y. M. C. A. Bldg., power house and mill building for Hanes Knitting Mills, and a passenger terminal, all in Winston-Salem. *TT 17.5: SP 0.5: P 17: RC 14: D 2. TT 19.5: SP 0.5: P 19: RC 14: D 2.* Refers to W. P. Creager, H. W. Ferris, E. J. Fort, A. B. Fry, J. M. Geary, A. F. Johtz, C. S. Howell, J. L. Ludlow, D. H. Sawyer, H. L. Shaner, W. McI. Wolfe.

740

(2) **GARDNER, EVAN HARRIS**, Y. M. C. A., Augusta, Me. (Age 22. Born Philadelphia, Pa.) 1928 C. E., Lehigh Univ. Summer 1924 Billing Clerk, Lehigh Structural Steel Co., Allentown, Pa. Summers 1925-1928 Timekeeper and Paymaster, Lehigh Constr. Co., Allentown, kept records, miscellaneous work on steel erection, cost estimating and occasionally Foreman. July 1928 to date on design work, Bridge Dept., Maine State Highway Comm., Augusta, Me. *TT 4: P 4.* Refers to S. A. Becker, R. J. Fogg, M. O. Fuller, W. H. Mohr, H. G. Payrow.

741

(8) **GARDNER, JUNIUS RAYMOND**, 1006 South Fell Ave., Normal, Ill. (Age 28. Born Winnebago, Ill.) 1923 B. S., Coll. of Eng., Univ. of Ill. *TT 4: P 4.* June to Dec. 1922 Res. Engr. and Inspector, Iroquois County (Ill.) Highway Dept., in charge of construction of 5 miles of reinforced concrete pavement and a bridge. *TT 0.5: P 0.5: RC 0.5.* April 1923 to Jan. 1924 Res. Engr., Champaign County (Ill.) Highway Dept., on design, and (6 months) in charge of construction of 8 miles of reinforced concrete pavement. *TT 0.7: SP 0.1: P 0.6: RC 0.6: D 0.1.* March to June 1924 Senior Inspector, Pennsylvania State Highway Dept., 1 month in charge of construction of 8 miles of reinforced concrete pavement and 1½ months on design in Pittsburgh office. *TT 0.2: P 0.2: RC 0.2: D 0.1.* June 1924 to March 1925 Field Draftsman and Asst. Chf. of Party, Kentucky State Highway Dept., 6 months on design and 4 months on field work, including charge of party. *TT 0.8: SP 0.1: P 0.7:*

RC 0.7: D 0.5. March 1925 to date Asst. Engr. with Taylor & Woltmann, Bloomington, Ill., in charge of construction of reinforced concrete pavement and of field party on surveying, design of pavements, sewers, sewage-disposal plants, reinforced concrete structures, tile drainage, etc. *TT 3: SP 0.3: P 2.7: RC 2.7: D 1.3.* *TT 9.2: SP 0.5: P 8.7: RC 4.7: D 2.* Refers to H. E. Babbitt, M. L. Enger, G. W. Pickels, S. I. Pinel, M. C. Taylor, C. C. Wiley, J. J. Woltmann.

742

(15) **GARRETT, WILLIAM HAYDEN**, Archer City, Tex. (Age 28. Born Grapeland, Tex.) Jan. 1920 to Nov. 1923 Rodman and Instrumentman with County Engr., Coleman County, Tex. *TT 3.5: SP 0.3: P 3.2.* Nov. 1923 to Jan. 1925 Instrumentman and Draftsman with County Engr., Callahan County, Tex., on plans and estimates, supervising highway construction. *TT 1.2: P 1.2: RC 1.2 D 0.6.* Feb. to April 1925 Office Engr. with Develin Eng. Co., County Engrs., Jones County, Tex., plans and estimates on highway work. *TT 0.2: P 0.2: R C0.2: D 0.2.* April to June 1925 Field Engr. with County Engr., Shackelford County, on highway location and supervising construction. *TT 0.2: P 0.2: RC 0.2.* June 1925 to Sept. 1927 with Texas State Highway Dept. until March 1927 as Asst. Res. Engr. then Res. Engr. on location, plans, estimates, design and supervision of construction. *TT 2: P 2: RC 2: D 1.2.* July 1927 to date Asst. Res. Engr. Texas State Highway Dept., until July 1928 at Graham, Tex., then at Archer City, Tex., on location, plans, estimates and supervision of construction. *TT 1.1: P 1.1: RC 1.1: D 0.4.* *TT 8.1: SP 0.3: P 7.8: RC 4.6: D 2.4.* Refers to W. E. Dickerson, G. E. Franklin, C. S. Henning, Jr., G. R. Johnston, J. E. Pirie, G. G. Wickline.

743

(1) **GARTNER, OTTO MELVIN**, Progreso, Chiriqui Province, Panama. (Age 34. Born Mishawaka, Ind.) 1916 B. S. in C. E., and 1921 C. E., Purdue Univ. *TT 4: P 4.* June 1916 to Aug. 1917 Asst. on Eng. Corps, Akron (Ohio) Div., Pennsylvania R. R., instrument work, inspection, drafting, etc. *TT 0.6: SP 0.6.* Aug. 1917 to Dec. 1927 with United Fruit Co. as follows: Aug. 1917 to June 1919 Instrumentman and Party Chf. on surveys, Preston, Oriente, Cuba; June 1919 to Dec. 1920 Asst. Engr. in charge of railroad location and construction; Dec. 1920 to Sept. 1925 Chf. Engr. in charge of all engineering, Guatemala Div., including surveys, railroads, buildings, reclamation, etc.; Sept. 1925 to Dec. 1927 Chf. Engr., Colombia Div. *TT 9.7: SP 0.6: P 9.1: RC 7: D 7.* Dec. 1927 to date Asst. to Mgr., Chiriqui Land Co., developing new division, including surveys, railroads, buildings, drainage, flood protection, water supply, etc. *TT 0.6: P 0.6: D 0.6.* *TT 14.9: SP 1.2: P 13.7: RC 7.6: D 7.6.* Refers to W. K. Hatt, H. Parker, W. W. Schuyler. (Applies in accordance with Sec. 1, Art. I of the By-laws.)

744

(2) **GAUCHER, LEON PHILIP**, 85 Prospect St., Marlboro, Mass. (Age 24. Born Spencer, Mass.) 1928 B. S. in C. E., Mass. Inst. Tech. *TT 4: P 4.* Summer 1923 Rodman and Transitman, City of Marlboro, Mass. Sept. to Nov. 1924 Transitman, Pratt Eng. Co., Worcester, Mass. *TT 0.1: SP 0.1.* Nov. 1924 to April 1925 with Vaughan Engrs., Boston, Mass., as Transitman in charge of field party, Draftsman and Detailer on Jackman Hydro-electric Development. *TT 0.2: SP 0.2.* April 1925 to Aug. 1926 Asst. Engr., United Fruit Co., Colombia, on surveys, designs, estimates and supervision of construction of irrigation and drainage projects. Aug. to Sept. 1926 Transitman, Dept. of Public Works, Highway Div., Boston, Mass. Summer 1927 Asst. to H. K. Barrows, Cons. Engr., Cambridge, Mass., on water power appraisal work, survey, design and estimates for evaluation of water rights. Jan. 1924 to date (vacations, etc.) on surveys, drafting and computations of plane land surveys for local engineer. *TT 0.7: SP 0.7.* *TT 5: SP 1: P 4.* Refers to H. K. Barrows, C. M. Spofford, C. H. Sutherland, J. H. Tebbets.

745

(1) **GAUSSA, GERARD MAJELLA**, 945 Sherman Ave., New York City. (Age 22. Born New York City.) 1927 B. S. in C. E., Manhattan Coll. *TT 4: P 4.* July to Oct. 1927 Asst. Supt. of Constr., O'Flanagan Contr. Co., New York City, giving line and grade for excavation and foundations, keeping cost and time. *TT 0.1: SP 0.1.* Oct. 1927 to date Topographical Draftsman, Board of Transportation, New York City, checking contractors' design of street decking, underpinning, tunnel supports, etc., keeping progress records, drafting and office computation. *TT 0.4: SP 0.4.* *TT 4.5: SP 0.5: P 4.* Refers to T. M. Brassel, J. J. Costa.

746

(1) **GEERING, EMANUEL BERNHARD**, 5 Shará Mariette Pacha, Cairo, Egypt. (Age 32. Born Bern, Switzerland.) 1919 Diplom Civ. Engr., Ecole Pol. Federale, Zurich, Switzerland. *TT 4: P 4.* May 1919 to May 1921 Hydr. and Structural Engr. with H. E. Gruner, Basle, Switzerland, on hydraulic and structural design for preliminary projects and supervision, as Res. Engr., of part of Brumbach power station. *TT 1.3: P 1.3: RC 1: D 0.5.* May 1921 to March 1923 Asst. to Prof. L. Potterat, Ecole Polytechnique Federale, Zurich, Switzerland,

and Designer with Zehntner & Brennelsen, Cons. Engrs., Zurich, on reinforced concrete bridges and buildings. *TT 1.9: P 1.9: RC 1.9: D 0.5.* April 1923 to April 1924 Hydr. and Structural Designer, Southern Power Co., Charlotte, N. C., on reinforced concrete dams and substructure of power house of Isle Maligne Station, Canada, and sub and superstructure of Duncan (S. C.) steam station. *TT 1: P 1: RC 0.5: D 1.* May to Aug. 1924 Surveyor with Mees & Mees, Inc., Charlotte, on Green River power plant. *TT 0.3: P 0.3: RC 0.3.* Nov. 1924 to April 1925 Designer with George F. Hardy, Cons. Engr., New York City, on steel and concrete buildings of Price Pros. paper mill, Canada. *TT 0.6: P 0.6: RC 0.6: D 0.6.* May to Sept. 1925 Checker with Stone & Webster, Philadelphia, Pa., on working drawings for Richmond steam station. *TT 0.4: P 0.4: RC 0.4: D 0.4.* Oct. 1925 to date Prof. of Bldg. Constr., Royal School of Eng., Glza, Egypt. *TT 2.7: P 2.7: RC 2.7. TT 12.2: P 12.2: RC 7.4: D 3.* Refers to H. R. Faison, P. E. Gisiger, H. E. Gruner, A. F. Hartman, K. E. Hilgard, C. A. Mees, A. Meyer.

747

(6) GIBSON, RAYMOND LAYTON, Huntersville, W. Va. (Age 28. Born Huntersville, W. Va.) 1928 B. S. C. E., W. Va. Univ. *TT 4: P 4.* Refers to G. P. Boomsalter, L. V. Carpenter, R. P. Davis.

748

(1) GILL, WARREN EASTERBROOK, 734 Ocean Ave., Brooklyn, N. Y. (Age 37. Born Northport, Mich.) 1911 to 1913 student, Univ. of Illinois (1 year) and Michigan Agricultural Coll. (1 year). *TT 1: P 1.* June 1913 to Jan. 1915 Supt. of Constr., Lackawanna Bridge Co. and Worden Allen Co., on structural steel, layouts, factory buildings, bridges, etc. *TT 1.5: P 1.5: RC 1.2.* Jan. to June 1915 Night Supt., Henry Erickson Co., on building foundations, caisson work. *TT 0.5: P 0.5: RC 0.5.* June 1915 to Oct. 1916 with Portland Cement Association, as Concrete Engr. on roads, bridges, etc., being Advisor to Contrs. and City Engrs., designs, etc. *TT 1.3: P 1.3: D 1.3.* Oct. 1916 to April 1917 Engr., Illinois Bell Telephone Co., on switchboard, circuit layouts, etc., drafting. *TT 0.5: P 0.5: D 0.5.* April 1917 to Aug. 1919 1st Lieut., U. S. Army Engrs., training troops, building camps, railroads, bridges, roads, operating quarries, etc., 1½ years in France. *TT 2: P 2: RC 2.* Sept. 1919 to Oct. 1921 Supt. of Constr., Sinclair Oil Co., in charge on service and tank stations, warehouses, pipe lines, refineries, etc. *TT 2: P 2: RC 2.* Oct. 1921 to March 1928 Architectural Supt., until Feb. 1922 with Moores & Dunford, Warehouse Engrs., in charge of outside work on reinforced concrete buildings, from March 1922 to Jan. 1923 with Geo. C. Nimmons Co., in charge, for architects, of Olympia Fields Country Club, and Jan. 1923 to March 1928 with C. W. & Geo. L. Kepp, on theatre and office buildings, also Owners Engr. and Plan Engr. at National Press Bldg. Corporation, during course of construction of National Press Bldg., Washington, D. C. *TT 6.2: P 6.2: RC 6.2: D 1.2. TT 15.4: P 15.4: RC 12.3: D 3.1.* Refers to H. C. Blake, J. W. Emlg, J. R. Hall, P. L. Hein, E. Lieberman, J. W. Musham, J. W. Oehmann, C. C. Wright.

749

(13) GILROY, URBAN BURNS, 1300 Crocker First National Bank Bldg., San Francisco, Cal. (Age 32. Born Marysville, Cal.) 1922 A. B. in Civ. Eng., Stanford Univ. *TT 4: P 4.* March 1915 to Jan. 1916 Draftsman, Rodman, Chainman and Instrumentman with E. D. Woodruff, Civ. Engr., Marysville, Cal. *TT 0.5: SP 0.4: P 0.1: RC 0.1.* July to Aug. 1918 Draftsman, California State Highway Comm., Willits, Cal. *TT 0.1: SP 0.1.* Sept. 1918 to Jan. 1919 Private and 2d Lieut., F. A., Field Artillery Central Officers' Training School, Camp Zachary Taylor, Ky. Summer, 1920 Asst. Engr., Southern Pacific Co., Coast Div., San Francisco, Cal., office work on valuation. April to May 1922 Draftsman with J. C. L. Fish, Stanford University. *TT 0.1: P 0.1.* June to Oct. 1922 Asst. Engr. with Alexander & Baldwin, Ltd., Pala, Maui, Hawaii, on stream measurements, investigations of seepage losses, etc., drafting and computations for design of penstock on Kehaka project. *TT 0.4: P 0.4: RC 0.3.* Nov. 1922 to March 1923 Instrumentman, Pipe Line Dept., Standard Oil Co. of California, Signal Hill Field, Cal. *TT 0.4: P 0.4: RC 0.2.* June to Nov. 1923 and Dec. 1926 to April 1927 Asst. Engr. with F. H. Fowler, Cons. Engr., San Francisco, on valuation of petroleum properties, hydrographic investigations and water-power developments, and (after Dec. 1926) studies in connection with flood-control investigations in San Joaquin Valley and on San Gabriel River. *TT 0.7: P 0.7: RC 0.3.* Dec. 1923 to March 1924 Asst. to Paul Bailey, Cons. Engr., Spring Valley Water Co., San Francisco, office work on study of underground waters of Niles Cone. *TT 0.3: P 0.3: RC 0.2.* April to Sept. 1924 Hydrographer, Spring Valley Water Co., on water-supply investigation. *TT 0.5: P 0.5.* Sept. 1924-Nov. 1926 Asst. Hydr. Engr. (Grade 4), Dept. of Public Works, Sacramento, Cal., until May 1926 with Div. of Eng. and Irrigation on hydrographic investigations in connection with proposed salt water barrier in Carquinez Straits, flood control and irrigation studies in Sacramento and San Joaquin Valley, then with Div. of Water Rights, being Water Master in charge of regula-

tion and distribution of waters of Hat and Burney Creeks, Shasta County, Cal.; designed and superintended construction of permanent gauging stations for Federal Power Comm. *TT 2.2: P 2.2: RC 1.1: D 0.1.* May 1927 to date Asst. Civ. Engr., U. S. Engr. Office, 2d Dist., San Francisco, on preliminary designs and estimates of cost of arched dams for restraining hydraulic mining debris on Yuba, Bear and American Rivers; field tests of placer gravels; investigations on silting in reservoirs; flood-control studies. *TT 1.2: P 1.2: RC 1.2. TT 10.4: SP 0.5: P 9.9: RC 3.4: D 0.1.* Refers to P. Bailey, S. Baker, R. L. Egenhoff, J. C. L. Fish, F. H. Fowler, H. L. Haehl, W. L. Huber, E. Hyatt, C. D. Marx, G. Zander.

750

(10) GLENN, HOWARD EMMIT, Box 32, Clemson College, S. C. (Age 31. Born Hartford, Ky.) 1922 B. S. in Civ. Eng., and 1927 C. E., Univ. of Ky. *TT 4: P 4.* Aug. 1916 to Aug. 1919 with U. S. Army on Mexican border and in World War. June 1922 to Sept. 1924 Asst. Testing Engr., Kentucky State Highway Dept., tests and research in materials-testing laboratory. *TT 1.7: SP 0.7: P 1.* Sept. 1924 to Sept. 1927 Asst. Prof. and Sept. 1927 to date Assoc. Prof. of Civ. Eng., Clemson Agri. and Mech. College of South Carolina, since Sept. 1927 also Constr. Engr. for Coll. on new engineering building. *TT 4: P 4: RC 4. TT 9.7: SP 0.7: P 9: RC 4.* Refers to E. L. Clarke, W. A. Newman, W. E. Rowe, F. R. I. Sweeny, D. V. Terrell.

751

(9) GODDARD, JAMES ELMER, Farmersburg, Ind. Graduating student awarded Illinois Section prize. (Age 21. Born Farmersburg, Ind.) 1928 B. S. in C. E., Rose Pol. Inst. Summers 1925 and 1926 Rodman with A. Reed, stadia and some railroad work with United Elec. Coal Co. *TT 4: P 4.* Refers to R. E. Hutchins, R. L. McCormick.

752

(10) GOLDWASSER, ABE HARRIS, 1269 Oxford Rd., Atlanta, Ga. (Age 22. Born Athens, Ga.) 1928 B. S. in Civ. Eng., Ga. School Tech. At present Concrete Designer and Inspector, Tennessee State Highway Dept. *TT 4: P 4.* Refers to R. P. Black, R. S. Fiske, W. A. Hansell, C. E. Kauffmann, F. C. Snow.

753

(1) GORMLEY, JOHN ELLIS, 9 Garrison Ave., Jersey City, N. J. (Age 24. Born Carthage, N. Y.) 1927 B. S. in C. E., Univ. of Mich. *TT 4: P 4.* July 1927 to April 1928 Jun. Engr., New Jersey State Highway Dept., quantity estimating and keeping reinforced concrete construction records. *TT 0.4: SP 0.4.* April 1928 to date Structural Draftsman, Otis Elevator Co., detailing. *TT 0.2: SP 0.2. TT 4.6: SP 0.6: P 4.* Refers to R. H. Sherlock, O. C. Whitman.

754

(11) GROVER, NEWELL ARTHUR, Newhall, Cal. (Age 28. Born Rutland, Vt.) 1921 B. S., Mass. Inst. Tech. *TT 4: P 4.* July 1921 to April 1922 Jun. Engr., Vermont State Highway Dept., Montpelier, Vt., acting as Instrumentman and Draftsman. *TT 0.8: P 0.8.* May 1922 to March 1923 Asst. Engr. with A. C. Grover, Civ. Engr., Rutland, Vt., acting as Instrumentman and Draftsman on surveys, county road projects, etc. *TT 0.9: P 0.9.* April 1923 to March 1924 Mech. Draftsman, Curtiss Aeroplane & Motor Corporation, Garden City, N. Y., detailing structural parts for aeroplanes. *TT 1: P 1.* May 1924 to Sept. 1927 Draftsman-Computer with Gibbs & Hill, Cons. Engrs., New York City, on catenary computation and track layout for railroad electrification, after Jan. 1927 in charge of yard cross-catenary calculations. *TT 3.4: P 3.4: RC 0.7.* Nov. 1927 to date field Draftsman, California State Highway Dept., Newhall, Cal., being Draftsman-Computer on new state highway project through mountainous country. *TT 0.7: P 0.7. TT 10.8: P 10.8: RC 0.7.* Refers to S. V. Cortelyou, N. C. Grover, H. W. Hudson, C. M. Spofford.

755

(1) GURLEY, LEON RAYMOND, 420 Lexington Ave., New York City. (Age 35. Born Indianapolis, Ind.) 1911 to 1914 student until 1912 at Univ. of Chicago, then at Univ. of Illinois. *TT 1: P 1.* Feb. to Aug. 1915 Mech. Engr., Hydro-Stone Co., Chicago, Ill., in charge of machinery, on maintenance supervision and redesign of improvements. *TT 0.4: SP 0.1: P 0.3: RC 0.1: D 0.1.* Aug. 1915 to July 1917 Chf. Estimator, Sales Dept., American Terra Cotta & Ceramic Co., Chicago, Ill. *TT 1.9: P 1.9: D 0.5.* July 1917 to June 1919 with Corps of Engrs., U. S. Army, as 1st Lieut. with 108th Engrs. later with Transportation Dept., A. E. F. *TT 1.9: P 1.9: RC 1.9.* June 1919 to June 1921 member of firm, Gurley & Gurley, Engrs., Houston, Tex., responsible charge of highway and drainage work. *TT 2: P 2: RC 2: D 2.* June 1921 to date with James L. Darnell, Engr., New York City, valuation and general consulting practice, in responsible charge of valuation work of coal, oil, gas and sulphur properties; made appraisals and reports of industrial plants, etc. *TT 7.2: P 7.2: RC 7.2: D 1. TT 14.4: SP 0.1: P 14.3: RC 11.2: D 3.6.* Refers to W. W. Atterbury, J. L. Darnell, C. S. Kirkpatrick, E. P. Palmer, F. S. Schwinn, G. G. Wickline.

756

(1) GYVES, JOHN JOSEPH, Jr., 117 Engert Ave., Brooklyn, N. Y. (Age 20. Born Brooklyn, N. Y.) 1928 B. S. in C. E., Manhattan Coll. Summer 1925 Costkeeper and Summers 1926 and 1927 Timekeeper, Wm. P. McGarry Co., on reinforced concrete buildings. TT 4: P 4. Refers to C. E. Beam, J. J. Costa.

757

(1) HALKIOPOULOS, GEORGE ANDREW, 12a Tarson St., Athens, Greece. (Age 36. Born Athens, Greece.) 1914 graduate, Tech. Inst., Athens, Greece. 1918 B. S., Harvard Univ. 1918 B. S., and 1919 M. S., Mass. Inst. Tech. TT 4: P 4. Aug. 1914 to Oct. 1916 Civ. Engr., Dept. of Public Works, Greek Govt., on design and construction of public roads. TT 2.2: P 2.2: RC 1.5: D 0.5. July 1919 to Feb. 1920 Structural Draftsman with Charles Mayer, Cons. Engr., New York City. TT 0.6: P 0.6: D 0.6. March to Nov. 1920 Member, Eng. Committee for Water Supply of Athens, with Ford, Bacon & Davis, New York City. TT 0.6: P 0.6: D 0.6. Jan. 1921 to date Cons. Engr. and Gen. Contr., Petsandis Halkiopoulos Co., Athens, Greece. TT 7.6: P 7.6: RC 7.6. TT 15: P 15: RC 9.1: D 1.7. Refers to R. W. Gausmann, W. E. Spear, C. M. Spofford. (Applies in accordance with Sec. 1, Art. I, of the By-laws.)

758

(8) HALL, HALBERT HUGO, 605 South Busey Ave., Urbana, Ill. (Age 27. Born Chicago, Ill.) 1928 B. S., Univ. of Ill. TT 4: P 4. July 1925 to Jan. 1926 Field Engr., Shell Isle Inc., St. Petersburg, Fla., on real-estate development, hydraulic fill, sea-wall construction, pavements, sewers, subdivision. TT 0.6: P 0.6. Feb. to July 1926 Chf. Engr., Florida Garden Land Co., Bushnell, Fla., on real-estate development, drainage, surveys, city planning and roads. TT 0.5: P 0.5: RC 0.5. July 1926 to May 1927 Instrumentman, and May to Sept. 1927 Inspector on bridge construction, Chicago Northwestern R. R. TT 1.2: P 1.2. TT 6.3: P 6.3: RC 0.5. Refers to H. Cross, W. C. Huntington.

759

(2) HAMMOND, WILSON THOMAS, 226 Clifton St., Malden, Mass. (Age 23. Born Lincoln, Nebr.) 1928 B. S., Mass. Inst. Tech. TT 4: P 4. Refers to J. B. Babcock, 3d, C. M. Spofford.

760

(15) HANSON, LORING OUTHIER, 1723 Fifth Ave., Ft. Worth, Tex. Graduating student awarded Kansas State Section prize. (Age 21. Born Hamilton, Ill.) 1928 B. S. in C. E., Univ. of Kans. At present with Bureau of Public Roads. TT 4: P 4. Refers to J. C. Carpenter, A. R. Losh, W. C. McNown, G. W. Mayo, C. T. Nitteberg, H. A. Rice, F. A. Russell.

761

(5) HARGRAVE, NORMAN LEE, Dinwiddie, Va. (Age 36. Born in Dinwiddie County, Va.) Received diploma in surveying and mapping, and studied civil engineering at International Correspondence Schools. Sept. 1915 to Jan. 1916 Chairman, Vaughan Constr. Co. TT 0.2: SP 0.2. Jan. 1916 to Sept. 1917 and June 1919 to Sept. 1920 Asst. to County Surveyor, Dinwiddie County, on surveys and subdivision. TT 1.7: SP 1.4: P 0.3: RC 0.2. Sept. 1917 to Jan. 1918 Rodman, Norfolk & Western R. R. Co. TT 0.2: SP 0.2. May 1918 to June 1919 with 29th Regt. of Engrs., U. S. Army, in France, on topography and map making TT 0.5: SP 0.5. Sept. to Oct. 1920 Engr. with Atlantic Coast Realty Co. on surveys and subdivision. TT 0.1: P 0.1: RC 0.1. Feb. to April 1925 Engr. with K. H. Barrow, Roanoke Rapids, N. C., on location of 24 miles of high-power transmission line. TT 0.3: P 0.3: RC 0.3. Oct. 1925 to March 1926 Engr., Bishop Eng. Co., general engineering. TT 0.5: P 0.5: RC 0.5. June to July of years 1926 and 1927 with C. C. Chambers, Clarksville, Va., on hydro-electric survey. TT 0.4: P 0.4: RC 0.4. 1920 to date also Engr. in responsible charge of party making road location survey in a public park and a country club; plotted cross sections, figured earthwork, grades and curves, set grades on road construction; located and plotted contours, subdivided and restaked subdivisions, and on other small jobs. TT 4.8: P 4.8: RC 4.8: D 1.2. TT 8.7: SP 2.3: P 6.4: RC 6.3: D 1.2. Refers to G. H. Bishop, R. D. Budd, C. C. Chambers, P. H. Glover, C. P. Rhynus.

762

(15) HARLESS, CHARLES MALCOLM, City Engr.'s Dept., Houston, Tex. (Age 24. Born Houston, Tex.) 1928 B. S. in Civ. Eng., Rice Inst. TT 4: P 4. June 1926 to March 1927 Assessments Engr., with H. D. Shaw, Gulfport, Miss., on field measurements, computation of quantities, allocation of proportional costs, assessment lists, etc. TT 0.4: SP 0.4. March to Sept. 1927 Asst. Engr., City of Gulfport, field and office work on final checkup of improvement work. TT 0.3: SP 0.3. TT 4.7: SP 0.7: P 4. Refers to J. C. McVea, L. B. Ryon, Jr., H. D. Shaw, W. E. White.

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(8) **HARDEN, HARVEY ADELBERT**, 410 North Cuyler Ave., Oak Park, Ill. (Age 23. Born Chicago, Ill.) 1928 B. S. C. E., Univ. of Kans. June 1923 to Sept. 1924 and summers 1925 and 1926 with Burrell Eng. & Constr. Co., Chicago, Ill., as Timekeeper, also cost keeping, inspecting and laying out work on cement plant improvements, etc., and (1926) Draftsman. Summer 1927 Asst. Res. Engr. with Bleack & Beach of Kansas City, Mo., laying and inspecting work in connection with construction of pipe line, impounding reservoir, water plant and sewage plant improvements, City of Eldorado, Kans. TT 4: P 4. Refers to E. H. Dunmire, W. G. McNowen, H. A. Rice, F. A. Russell, N. T. Veatch, Jr.

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(1) **HARNED, WARREN PHILLIPS**, 57 Greene St., Woodbridge, N. J. (Age 21. Born Woodbridge, N. J.) 1928 B. S. in C. E., Drexel Inst. TT 4: P 4. June-Dec. of years 1925 and 1926 with New Jersey State Highway Dept., as Rodman in Perth Amboy (N. J.) Office (1925) and Jun. Engr., Newark (N. J.) Office, running instruments, taking notes, laying grade, drawing plans, etc. (1926). TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4. Refers to H. L. Bowman, S. J. Leonard.

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(3) **HARRINGTON, EARL LAWRENCE**, 592 Ellicott Sq., Buffalo, N. Y. (Age 34. Born Vineland, N. J.) Licensed Prof. Engr. and Land Surveyor, New York State. 1917 B. C. E., Univ. of Cin. TT 4: P 4. June 1917 to Aug. 1918 and June 1919 to Nov. 1922 with Lupfer & Remick, as Asst. Engr. on estimates for structures, drafting, design of bridge piers and abutments, coffer dams, forms, reinforcement, lift bridge mechanism, concrete tanks, etc., also (after June 1919) Supt. of Constr. of filter plant and low lift pumping station for Tonawanda, N. Y., filter plant at Ft. Niagara, N. Y., compressor building, Iroquois Gas Co., Buffalo, N. Y., and various engineering investigations. TT 4.4: SP 0.3: P 4.1: RC 4.1: D 2.2. Aug. 1918 to May 1919 with U. S. Army, Co. H, 59th Pioneer Infantry, with Engrs., in France, as private on construction of roads, and Non-commissioned Officer in charge of constructing prison stockades, barracks and storehouses. TT 0.6: SP 0.3: P 0.3: RC 0.3. Dec. 1922 to May 1924 Field Engr., Fegles Constr. Co., Ltd., Minneapolis, Minn., on construction of Pillsbury flour mill, Buffalo. TT 1.5: P 1.5: RC 1.5: D 0.5. June 1924 to date Asst. Engr., Edward P. Lupfer Corporation, Buffalo, planning, laying out and constructing structures and improvements of Brantwood Park; field and office engineering for Peace Bridge between Buffalo and Ft. Erie, Ont., covering surveys, studies, terminal and terminal building design, etc. TT 4.2: P 4.2: RC 4.2: D 2.5. TT 14.7: SP 0.6: P 14.1: RC 10.1: D 5.2. Refers to G. M. Braune, R. W. Cady, L. L. Davis, W. R. Davis, A. J. Dillenbeck, E. P. Lupfer, E. G. Speyer, F. J. Wright.

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(10) **HARRIS, GRANVILLE YAGER**, Route No. 1, Blitmore, N. C. (Age 25. Born South Braintree, Mass.) 1928 B. S. in C. E., Univ. of N. C. TT 4: P 4. Refers to G. M. Braune, F. V. Fields, T. F. Hickerson, H. F. Janda, T. Saville.

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(8) **HART, ROBERT GORDON**, 808 South Ridgeland Ave., Oak Park, Ill. (Age 20. Born Rockford, Ill.) 1928 B. S. in C. E., Univ. of Ill. TT 4: P 4. Refers to J. S. Crandall, H. Cross, W. C. Huntington, T. C. Shedd.

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(1) **HARTMAN, HARRY FRANKLIN**, Roslyn, N. Y. (Age 23. Born Bloomsburg, Pa.) 1926 C. E., Cornell Univ. June 1926 to date Broker's Clerk with Pask & Walbridge, New York City. TT 4: P 4. Refers to F. A. Barnes, J. E. Perry.

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(1) **HARTMANN, ROLF FOUGNER**, 144 Old Bergen Rd., Jersey City, N. J. (Age 31. Born Bordeaux, France.) 1919 Diploma of Mech. Engr., Ecole d'Ingenieurs, Univ. of Lausanne, Switzerland. TT 4: P 4. Dec. 1919 to Sept. 1920 Engr., Kongs Vandbygningskontor, Oslo, Norway, checking panstocks, hydro-electric plants, surveying, etc. TT 0.6: SP 0.3: P 0.3. Sept. 1920 to May 1921 military service in Norway. June to Dec. 1921 Draftsman with A/S Titan, Mfr. of Elevators and Hoists, Copenhagen, Denmark, detailing electric motors. TT 0.3: SP 0.3. Dec. 1921 to July 1923 traveling. Aug. 1923 to Sept. 1924 Draftsman with Sargent & Lundy, Chicago, Ill., tracing and detailing piping in steam-power plants. TT 0.6: SP 0.6. Sept. 1924 to May 1926 Asst. Supt., Burrell Eng. & Constr. Co., Chicago, in charge of payrolls, reports and cost data on construction of grain elevators, cement and stone-crushing plants. TT 0.8: SP 0.8. June 1926 to date Asst. Supt. and Engr., Deakman-Wells Co., in charge of layout of fireproof buildings. TT 1.7: P 1.7: RC 1.7. TT 8: SP 2: P 6: RC 1.7. Refers to B. Arneberg, F. Bagge, H. W. Deakman, W. A. Dittman, H. T. Immerman, W. H. Reilly.

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(14) **HAZARD, STUART GRAY**, 617 Madison, Topeka, Kans. (Age 21. Born Tonganoxie, Kans.) 1928 B. S. in Civ. Eng., Univ. of Kans. *TT 4: P 4.* May 1928 to date Draftsman and Checker for R. A. Finney, Cons. Engr., Topeka, Kans. *TT 0.1: SP 0.1. TT 4.1: SP 0.1: P 4.* Refers to R. A. Finney, W. C. McNown, H. A. Rice.

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(10) **HEARD, WILLIAM LEE**, Oxford, Miss. (Age 20. Born Oxford, Miss.) 1928 B. E., Univ. of Miss. Summer 1925 Rodman with J. H. Dorroh, University, Miss., and summer 1926 Instrumentman with R. H. Hurlbutt, Yazoo City, Miss., on highway location. April 1927 to date (while student) County Engr., Lafayette County Board of Supervisors, on construction of highways and bridges. *TT 4: P 4.* Refers to J. H. Dorroh, J. H. Johnston.

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(1) **HEINS, HENRY**, 1195 Hancock St., Brooklyn, N. Y. (Age 41. Born Brooklyn, N. Y.) 1910 B. E. in C. E., Cooper Union. *TT 4: P 4.* July 1910 to March 1912 Surveyman, U. S. Reclamation Service, Northern Div., Montana, being Chf. of Party. *TT 1.6: SP 0.2: P 1.4: RC 1.4.* May-July 1912 Rodman, New York City Board of Water Supply on Catskill Aqueduct, Cornwall, N. Y., Inspector on concrete lining. *TT 0.1: SP 0.1.* Aug.-Dec. 1912 Jun. Engr., Public Service Comm., New York City, being Chf. of Party on line and grade for section of subway, lower Manhattan. *TT 0.4: P 0.4: RC 0.4.* Jan. 1913 to Sept. 1914 Hydrographic Surveyor, Bureau of Navigation, U. S. Navy, being Chf. of Party, in charge of shoreline topography for harbor chart surveys, Coast of Haiti, West Indies. *TT 1.7: P 1.7: RC 1.7.* Sept. 1914 to Aug. 1917 Jun. Engr., and Aug. 1917-Dec. 1918 Asst. Engr., Public Service Comm., New York City, being Office Engr. on half-mile section of subway construction in tunnel and open cut, responsible for progress reports, estimates, field office drafting and design. *TT 4.3: P 4.3: RC 4.3: D 0.5.* Jan. to Feb. 1919 Valuation Engr., Illinois Appraisal Co., Chicago, responsible for field inventory and computations of plant valuations, U. S. Industrial Alcohol Co., Baltimore, Md., and Boston, Mass. *TT 0.1: P 0.1: RC 0.1.* Feb. 1919 to date Asst. Engr., Transit Comm., New York City, on final estimates and Sec. Engr. in charge of completion of half-mile section of subway construction, Squad Chf. and later in charge of details of preparation of valuation of rapid transit and street surface railroads, New York City; at present reporting to Chf. Engr., on engineering problems in connection with transit and grade crossing matters. *TT 9.4: P 9.4: RC 9.4: D 3. TT 21.6: SP 0.3: P 21.3: RC 17.3: D 3.5.* Refers to H. J. Alexander, N. S. Covert, B. A. Hodgdon, C. A. Hunt, W. C. Lancaster, W. L. Selmer, G. C. Whitney.

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(4) **HESS, HARRY CLAIR**, 10 South Eighteenth St., Philadelphia, Pa. (Age 38. Born Baltimore, Md.) Registered Prof. Engr., State of Pennsylvania. 1908 graduate, Baltimore Pol. Inst. 1910 to 1911 student, Massachusetts Inst. of Technology. *TT 0.5: P 0.5.* Dec. 1909 to Aug. 1910 Draftsman, Maryland Steel Co., Sparrows Point, Md. *TT 0.4: SP 0.4.* June 1911 to March 1912 Draftsman and Estimator, Berlin (Conn.) Constr. Co., structural drafting, detailing and estimating for structural steel buildings and bridges. *TT 0.4: SP 0.4.* March to Sept. 1912 Structural Draftsman and Designer, Gen. Elec. Co., Pittsfield, Mass., designing and planning steel and concrete plant buildings. *TT 0.5: P 0.5.* Oct. 1912 to Oct. 1914 Structural Draftsman and Checker, American Bridge Co., Pencoed, Pa., structural detailing and checking, design of detail connections on tall buildings. *TT 2: P 2.* Oct. 1914 to April 1915 Structural Designer and Draftsman, Lackawanna Bridge Co. (Bethlehem Steel Co.), Buffalo, N. Y., on design of coal-conveying apparatus, elevators, conveyors, etc., for coal storage. *TT 0.6: P 0.6: RC 0.6: D 0.6.* April to Sept. 1915 Structural Checker, Anthracite Bridge Co., Scranton, Pa., detailing and checking steelwork for coal breaker, design of coal conveyor bridge. *TT 0.5: P 0.5.* Oct. 1915 to Jan. 1916 Structural Designer, Hooker Electrochemical Co., Niagara Falls, N. Y., design and plans for plant extensions, including boiler house, evaporator house of concrete and steel, shop inspection of steelwork. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Jan. to June 1916 Designer and Salesman, Mgr., Wilkes-Barre Office, Scranton Iron & Steel Co., design of buildings of steel, estimates and sales. *TT 0.5: P 0.5: RC 0.5: D 0.3.* June 1916 to May 1918 Asst. to F. Dickinson Shaw, Cons. Engr., Philadelphia, on design and details of steel and reinforced concrete buildings, investigations, reports, etc. *TT 1.9: P 1.9: RC 1.9: D 1.* May 1918 to date in private practice of engineering, Philadelphia, on design and details of buildings, inspection, reports, etc. *TT 10: P 10: RC 10: D 10. TT 17.6: SP 0.8: P 16.8: RC 13.3: D 12.2.* Refers to C. F. Chase, O. H. Gentner, Jr., W. H. Gravell, C. H. Mercer, W. F. Newbery, W. R. Sauter, F. D. Shaw, B. White.

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(6) **HETZLER, PAUL GEORGE**, 1022 Fourth Ave., Beaver Falls, Pa. (Age 24. Born Rochester, Pa.) 1928 B. S. in C. E., Univ. of Pittsburgh. Sept. 1925 to Jan. 1926 Rodman,

Pennsylvania R. R. Co. Jan. to Sept. 1926 Rodman and Transitman, Jones & Laughlin Steel Corporation, Alliquippa (Pa.) Works, on factory and building construction, earthwork and surveying. *TT 4: P 4.* Refers to J. S. Lambie, L. C. McCandless, L. W. McIntyre.

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(1) **HIDALGO, RAFAEL ALBERTO**, 3810 Broadway, New York City. (Age 28. Born Latacunga, Ecuador.) 1923 C. E., Battersea Polytechnic. *TT 4: P 4.* B. of Sc. and Ph., Coll. Vicente Leon, Latacunga, Ecuador. Aug. 1923 to May 1924 Asst. Engr., Knipe & Partners, London, England, designing steel frame buildings and reinforced concrete structures. *TT 0.8: P 0.8.* June 1924 to June 1925 Asst. Engr. with Dr. Oscar Faber, Cons. Engr., London, designing steel and reinforced concrete structures. *TT 1: P 1.* June 1925 to Jan. 1927 Draftsman, Anglo-Chilean Consolidated Nitrate Corporation, New York City, on steel and reinforced concrete design, detailing and designing concrete structures; construction field work at Tocopilla, Chile. *TT 1.6: P 1.6.* March 1927 to Jan. 1928 Draftsman, Henry R. Kent, Rutherford, N. J., designing reinforced concrete foundations and detailing industrial buildings. *TT 0.9: P 0.9.* March 1928 to date Draftsman, Babcock Bros., New York City, preparing drawings and detailing reinforced concrete bridges. *TT 0.4: P 0.4.* *TT 8.7: P 8.7.* Refers to H. G. Babcock, M. Moreno.

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(1) **HIRSCH, LEO JOSEPH**, 415 Madison St., Brooklyn, N. Y. (Age 35. Born Bucharest, Roumania.) 1915 B. S. in C. E., Cooper Union. *TT 4: P 4.* June 1915 to Aug. 1917 Asst. Estimator and Draftsman, Peerless Iron Works, New York City, estimating on structural steel and miscellaneous iron, purchasing materials and making shop drawings. *TT 2.2: P 2.2: RC 0.5: D 0.5.* Aug. 1917 to Feb. 1918 Jun. Engr., Public Service Comm. of New York, First Dist., estimating final cost of subway section. *TT 0.5: P 0.5.* Feb. to May 1918 Airplane Designer, Curtiss Eng. Corporation, Garden City, N. Y., designing parts for flying boats. *TT 0.3: P 0.3: D 0.3.* May to Sept. 1918 Checker and Chf. Draftsman, Standard Aero Corporation, Elizabeth, N. J., checking airplane parts, then in charge of drafting on experimental pursuit plane. *TT 0.4: P 0.4: RC 0.4: D 0.4.* Sept. to Dec. 1918 Final Checker, Naval Aircraft Factory, Philadelphia, Pa., in charge of checking production drawings on flying boats. *TT 0.2: P 0.2: RC 0.2: D 0.2.* Dec. 1918 to May 1919 Airplane Designer, Sperry Aircraft Co., Farmingdale, N. Y., in charge of design of small parts for experimental plane. *TT 0.4: P 0.4: RC 0.4: D 0.4.* May to Aug. 1919 Airplane Designer, with L. N. W. Collin, Cons. Engr., New York City, designing and computing stresses for experimental land machine. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Aug. 1919 to Jan. 1921 Checker and Estimator, Turner Constr. Co., New York City, in charge of checking construction drawings and estimating costs of extras and credits. *TT 1.3: P 1.3: RC 1.* Jan. 1921 to July 1922 Estimator, White Constr. Co., New York City, estimating contracts, in charge of subcontract pricing and cost data work. *TT 1.4: SP 0.1: P 1.3: RC 0.4.* July to Oct. 1922 Draftsman with C. W. Hudson, Cons. Engr., New York City, assisting in design of reinforced concrete bridge. *TT 0.2: P 0.2: D 0.2.* Oct. 1922 to May 1923 Estimator, until Jan. 1923 with Gretch Constr. Co., then with Thompson & Binger, New York City, estimating building contracts. *TT 0.6: P 0.6.* May 1923 to date Engr., John Monks & Sons, New York City, in charge of complete projects, including design, estimating, pricing and supervision of construction in field of piers, harbor and terminal developments and buildings. *TT 5.2: P 5.2: RC 5.2: D 5.2.* *TT 17: SP 0.1: P 16.9: RC 8.4: D 7.5.* Refers to R. L. Bertin, E. D. Buel, R. C. R. Gautier, F. Leiser, F. A. Schrader, L. W. Weed.

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(10) **HOLLETT, ARTHUR RUSSELL**, Box 281, Chapel Hill, N. C. (Age 23. Born Hendrysburg, Ohio.) 1928 B. S. in Civ. Eng., Univ. of N. C. *TT 4: P 4.* June 1923 to April 1924 with Westinghouse Elec. & Mfg. Co., Pittsburgh, Pa., 6 months on small transformers then in student course. Summer 1924 with Field Dept., Cooper Constr. Co., Barnesville, Ohio, on street construction. Summer 1925 Rodman, State Dept. of Conservation and Development, Chapel Hill, N. C., on power survey. Sept. 1926 to Aug. 1927 (co-operative work while student) Asst. Engr., Water Filtration Dept., Charlotte, N. C., ran tests on water and sewage; vacations Transitman and Planner with H. R. Totten, Chapel Hill. *TT 0.5: SP 0.5.* *TT 4.5: SP 0.5: P 4.* Refers to G. M. Braune, H. F. Janda.

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(9) **HOLMES, PAUL MORDAUNT**, 991 East Mound St., Columbus, Ohio. (Age 30. Born Forest, Ohio.) 1925 B. C. E., Ohio State Univ. *TT 4: P 4.* May 1920 to June 1921 Timekeeper, Fred R. Jones Constr. Co., on steel-plant construction. *TT 0.5: P 0.5.* June 1924 to April 1926 Transitman and Jun. Asst. Engr., Franklin County San. Dept. *TT 1.8: P 1.8: RC 1: D 0.4.* April 1926 to Jan. 1928 Asst. Engr., Jennings & Lawrence Co., civil

and municipal engineering. *TT 1.8: P 1.8: RC 1: D 0.9.* Jan. 1928 to date Asst. Engr., City of Columbus. *TT 0.5: P 0.5: D 0.2.* *TT 8.6: SP 0.5: P 8.1: RC 2: D 1.5.* Refers to O. Bonney, E. G. Bradbury, F. H. Eno, F. W. Jennings, J. R. Shank, C. E. Sherman.

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(9) **HOMMON, CHARLES CURTIS**, 1403 Logan Ave., N. W., Canton, Ohio. (Age 39. Born Hilliard, Ohio.) 1 year student in chemistry, Ohio State Univ. June 1912-Oct. 1917 and Aug. 1920-Dec. 1923 Gen. Supt. of municipal sewage-treatment plants, City of Atlanta, Ga. *TT 8.8: P 8.8: RC 8.8.* Nov. 1917-July 1920 Capt., San. Corps, U. S. Army, greater part of time at headquarters, and in charge of water supply and sewage treatment. *TT 1.4: SP 1.4.* Jan. 1924-July 1926 Asst. San. Engr., Ohio State Dept. of Health (under Chf. Engr.), on maintenance of municipal sewage-treatment works and investigation of industrial wastes, etc. *TT 1.3: SP 1.3.* Aug. 1926 to Dec. 1927 Gen. Supt., municipal sewage-treatment plant, Canton, Ohio, reporting to Director of Public Service. *TT 1.3: P 1.3: RC 1.3.* Dec. 1927 to date with city of Canton, Ohio, as Supt. and Gen. Mgr. of sewage-treatment works. *TT 0.5: P 0.5.* *TT 13.4: SP 2.7: P 10.7: RC 10.2.* Refers to W. H. Dittoe, H. P. Eddy, L. H. Enslow, G. W. Fuller, W. H. Knox, L. Pearse, E. I. Roberts, F. H. Waring.

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(2) **HOUGH, BENJAMIN KENT, Jr.**, 10 Monmouth Court, Boston, Mass. (Age 23. Born Westfield, N. J.) 1928 B. S., Mass. Inst. Tech. Summer 1926 Asst. to Res. Engr. on water-supply extensions, with G. A. Griffin, Woods Hole, Mass. About 2 months on lot layouts, topographic surveying, etc. *TT 4: P 4.* Refers to C. B. Breed, W. M. Fife, J. W. Howard, C. H. Sutherland, C. M. Spofford.

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(3) **HOWE, HENRY LAWRENCE**, 52 City Hall, Rochester, N. Y. (Age 40. Born Canandaigua, N. Y.) 1910 M. E. (Elec.), Cornell Univ. *TT 4: P 4.* 1909 (2 months) Motor Tester, E. R. Thomas Motor Co. 1910 to 1912 Industrial Engr., Rochester Ry. & Light Co., factory investigations and testings, power, light and steam sales, designs, layouts, some hydraulic work, etc. *TT 1.7: SP 0.2: P 1.5: D 0.5.* 1912 to 1914 Testing Engr., Kodak Park Works, Eastman Kodak Co., on power-plant testing and efficiency work, fuel selections, etc., in charge of power records and tests on boilers, engines, turbines, compression and absorption refrigerating machinery, cooling towers, ventilating systems, made tests, investigations and designs for remodeling and increasing power plants, etc. *TT 2: P 2: D 0.5.* 1914 to date (except April 1917 to Feb. 1919) with City of Rochester, until 1917 as Asst. Engr. on sewage disposal including design on reinforced concrete and brick work, creek crossing, etc., for Hemlock Lake Water Conduit III, design of hydro-electric power and pumping plants, also mechanical and electrical work and equipment at Irondequoit and Brighton sewage-disposal plants; also in charge of drafting and record rooms in City Engr.'s office, covering street paving and sewer work, special sewage flow regulators, reinforced concrete building designs, maps, etc. Since Feb. 1919 Director, Municipal Testing Laboratory, Eng. Dept., work includes material tests and recommendations, inspection of asphalt-mixing and concrete-batching plants, material sources, etc., writing or revising specifications for materials and construction, etc.; also did considerable research on bituminous and concrete paving mixtures for Rochester Gas & Elec. Corporation in connection with construction of Mt. Morris and Canadea dams in Genesee Valley, etc.; has also been Cons. and Testing Engr. for Cities of Syracuse, Batavia and Ithaca, Towns of Brighton, Greece and Irondequoit, Villages of Fairport, Pittsford, etc., on sewer, pavement and other public improvements; since Jan. 1928 Director of Design and Constr. (City Engr.), Deputy Commr. of Public Works and Chf. Engr. of City Planning Comm. 1913 to date also with New York State Naval Militia, from April 1917 to Feb. 1919 with U. S. Navy, as Lieut. (j.g.) being Elec. Officer on Battleship Wisconsin, Atlantic Fleet, in charge of Elec. Div. and Plotting Room; also Asst. Fire Control Officer, Jan. 1918 became Lieut. (Senior grade) acting as Senior Asst. Officer; later Acting Engr. Officer in charge of Eng. Dept. *TT 16.3: P 16.3: RC 14.8: D 5.1.* *TT 24.5: SP 0.7: P 23.8: RC 14.8: D 5.6.* Refers to J. F. Ancona, H. W. Baker, N. H. Davidson, E. A. Fisher, F. J. Howes, W. S. Lozier, W. F. Pond, C. A. Poole, J. F. Skinner.

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(9) **HOWE, HOMER ASA**, Hanna Bldg., Cleveland, Ohio. (Age 39. Born Northfield, Vt.) 1911 B. S. in Civ. Eng., Norwich Univ. 1913 M. S. in Mech. Eng., Rose Pol. Inst. *TT 4: P 4.* Sept. 1911 to Sept. 1912 with Eastern Bridge & Structural Co., Worcester, Mass., as Fitter's Helper in ornamental iron shop, and Fitter, Detail Fitter and Checker in bridge shop. *TT 0.5: SP 0.5.* July 1913 to Oct. 1914 with Carnegie Steel Co., Homestead Armor Plate Works, Pittsburgh, as Asst. to Hardening Foreman (Metallurgist), and Helper and Asst. Foreman, in tool and experimental shop. *TT 0.9: SP 0.4: P 0.5.* Oct. 1914 to May 1915 Foreman in Heat Treating Dept., Erie (Pa.) Forge Co., ordnance and heavy forgings.

TT 0.3: SP 0.3. May 1915 to July 1917 Foreman, Heat Treating Dept., Detroit (Mich.) Gear & Machine Co., in charge of all metallurgical work, except purchase of steel. **TT 2.1: P 2.1: RC 2.1.** July 1919 to Nov. 1921 member of firm, Standard Heat Treating Co., Detroit, in charge of production, commercial heat treating. **TT 2.2: P 2.2: RC 2.2.** May 1922 to Jan. 1923 with Kroger Grocery & Baking Co., Detroit, being owner's representative on warehouse and bakery building. **TT 0.7: P 0.7: RC 0.7.** Jan. to June 1923 Archt.'s Supt., John Finn & Son, Detroit, on supervision of construction. **TT 0.5: P 0.5: RC 0.5.** July 1923 to Sept. 1926 Supt., Shourds Stoner Co., Archts. and Engrs., Terre Haute, Ind., in charge of field supervision of construction, checked structural design and specifications, etc. **TT 3.2: P 3.2: RC 3.2: D 1.** March to Oct. 1927 with Indiana Consumers Gas & By-Products Corporation, Terre Haute, as Draftsman on detail of buildings, tank and pipe work, and Research Engr. (acting as Plant Engr.) on layout, detail and supervision of changes and extensions to plant. **TT 0.6: SP 0.1: P 0.5: RC 0.5: D 0.5.** Oct. to Dec. 1927 Detaller, Freeman Riff Co., Terre Haute, on coal and ash-conveyors, hoppers, etc. **TT 0.1: SP 0.1.** March 1928 to date Structural Engr., Frank W. Ball Co., Cleveland, on design of buildings, frames, foundations, etc. **TT 0.4: P 0.4: RC 0.4: D 0.4.** **TT 15.6: SP 1.4: P 14.2: RC 9.7: D 1.9.** Refers to T. L. Condron, J. T. Hallett, M. A. Howe, K. E. Lancet, R. L. McCormick, C. A. Mees, A. C. Rasmussen.

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(9) **HOWE, WALTER ARNOLD**, Yellow Springs, Ohio. Graduating student awarded Dayton Section prize. (Age 24. Born North Wilbraham, Mass.) 1928 B. Sc., Antioch Coll. Oct. to Nov. 1922 and March to April 1924 Asst. to Engr., acting as Rodman, Chairman and Instrumentman, on computations, etc., H. K. Ferguson Co. (1922) and Thompson-Starrett Constr. Co. (1924). Dec. 1922 to Feb. 1924 Asst. to Engr., acting as Rodman, Chairman, etc., Asst. in concrete control tests and design, Masonry Inspector, May 1924 to Feb. 1925 Concrete Masonry Inspector, acting as Fourthman on M. of W. Eng. Squad, and Dec. 1925 to Feb. 1928 Masonry Inspector, all for Cleveland, Cincinnati, Chicago & St. Louis R. R. Co. **TT 4: P 4.** Refers to C. S. Bennett, A. E. Morgan, P. C. Nash.

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(15) **HUBBELL, CHARLES WHEELER**, 401 Delaware St., Bartlesville, Okla. (Age 22. Born Albany, N. Y.) 1926 B. S. in C. E., Univ. of Kans. **TT 4: P 4.** June 1926 to date with Eng. Dept., Phillips Petroleum Co., on mechanical drafting, surveying and construction. **TT 1: SP 1. TT 5: SP 1: P 4.** Refers to W. C. McNown, H. A. Rice, A. H. Riney.

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(7) **HUBBELL, HOWARD ADAMS**, 115 South Grinnell St., Jackson, Mich. (Age 36. Born Manistee, Mich.) 1916 B. C. E., Univ. of Mich. **TT 4: P 4.** June 1916 to Nov. 1925 (except April 1918 to July 1919 Private, 1st class, Co. B, 310th Engrs., U. S. Army, with A. E. F. at Archangel, Russia, on line duty and mapping) Asst. Engr. with Gardner S. Williams, Cons. Engr., Ann Arbor, Mich., acting as Draftsman and Instrumentman and (after Aug. 1919) on design of water-power developments, water supply reports, appraisals and surveys. **TT 9.3: SP 0.2: P 9.1: RC 1.** Nov. 1925 to Jan. 1926 Engr. with Spooner & Merrill, and Burd, Giffels & Hamilton, Cons. Engrs., Grand Rapids, Mich., on design of two hydro-electric plants, and Res. Engr. at Cascade Dam during construction. **TT 1.1: P 1.1: RC 0.7: D 0.4.** Jan. 1926 to date Engr., Civ. & Hydr. Dept., Commonwealth Power Corporation, Jackson, Mich., on design of hydro-electric power plants. **TT 1.5: P 1.5: D 1.5. TT 15.9: SP 0.2: P 15.7: RC 1.7: D 1.9.** Refers to L. E. Ayres, E. M. Burd, W. C. Giffels, E. Maerker, R. H. Merrill, C. W. Spooner, G. S. Williams.

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(1) **HUBER, CHARLES RUSSELL**, 415 Watson St., Ripon, Wis. (Age 27. Born Marengo, Iowa.) 1925 B. S., Eng. Coll. and 1927 M. S., Graduate Coll., State Univ. of Iowa. **TT 4: P 4.** Sept. 1927 to date Instructor of Eng. Drawing and Surveying, Ripon Coll. **TT 0.9: P 0.9. TT 4.9: P 4.9.** Refers to R. B. Kittredge, F. A. Nagler, E. L. Waterman, S. M. Woodward.

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(2) **HUMMEL, DAVID MARTIN**, 42 Smith St., Seymour, Conn. (Age 21. Born Seymour, Conn.) 1928 B. S., Sheffield Sci. School. **TT 4: P 4.** Refers to C. T. Bishop, R. S. Kirby, J. C. Tracy.

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(1) **HUNTER, WILLIAM BISHOP**, 44 Circuit Rd., New Rochelle, N. Y. (Age 57. Born New London, Va.) Jan. to May 1894 Rodman, Sept. 1894 to Jan. 1895 and May 1895 to Feb. 1896 Instrumentman, July to Nov. 1897 general inspection on construction of storage reservoir and Nov. 1897 to Sept. 1898 Asst. Engr. in charge of location and construction of marginal road, storage reservoir, all for City of Cambridge, Mass. **TT 1.7: SP 0.9: P 0.8: RC 0.5: D 0.3.** May to Sept. 1894 Rodman, City of Malden, Mass. **TT 0.2: SP 0.2.** Jan.

to March 1895 Foreman for Contr. on Stupling storage reservoir. *TT 0.1: SP 0.1.* March to May 1895 Inspector and Gen. Asst. on sewer construction, Town of Belmont, Mass. *TT 0.1: SP 0.1.* March 1896 to July 1897 Instrumentman, Inspector, and Asst. Engr. on sewer construction, Town of Melrose, Mass. *TT 0.6: SP 0.6.* Sept. 1898 to March 1899 Foreman on sewer construction, Concord, Mass.; F. A. Kinser, Contr. *TT 0.2: SP 0.2.* March 1899 to July 1901 Inspector and Asst. Engr. on construction, Boston (Mass.) Elevated R. R. *TT 1.8: SP 0.5: P 1.3: RC 1.3.* July to Sept. 1901 Asst. Engr., on surveys and plans, Town of North Bellina, Mass. *TT 0.2: P 0.2: RC 0.1: D 0.1.* Sept. 1901 to Dec. 1902 Asst. Engr. in charge of construction, Metropolitan high level sewer, Milton, Mass. *TT 1.2: P 1.2: RC 1.2.* Dec. 1902 to March 1903 Jun. Engr., U. S. Govt., Connecticut River survey, in charge of precise level party. *TT 0.1: SP 0.1.* March to May 1903 Asst. Engr., City Engr.'s Office, Melrose. *TT 0.2: P 0.2: RC 0.1: D 0.1.* May 1903 to March 1906 on survey and Overseer, U. S. Eng. Dept., on construction of sea coast defences. *TT 2.8: P 2.8: RC 2: D 0.8.* March to Nov. 1906 Asst. Engr., Westinghouse, Church, Kerr & Co., New York City. *TT 0.7: P 0.7: RC 0.4: D 0.3.* Feb. 1925 to Feb. 1926 Asst. Engr. with Nicholas S. Hill, Jr., on studies and designs for new water supply for City of Albany, N. Y. *TT 1: P 1: RC 1.* Feb. 1926 to April 1928 Engr., Heyman & Goodman Co., Contrs. on subway construction. *TT 2.2: P 2.2: RC 2.2.* Nov. 1906 to Jan. 1925 and April 1928 to date with Board of Water Supply, New York City, successively as Asst. Engr., Sec. Engr., Sr. Sec. Engr., and (since Nov. 1925) Div. Engr. *TT 20.6: P 20.6: RC 18.1: D 2.5.* *TT 31.6: SP 2.8: P 2.8: RC 24.7: D 4.1.* Refers to J. C. Boyd, W. Heyman, G. G. Honness, T. Merriman, J. W. Smith, W. E. Spear, L. White.

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(1) **INFANTE, PERCIVAL MAXIMILIAN**, 150 Broadway, New York City. (Age 47. Born London, England.) 1901 to 1904 Draftsman, Edward Wood & Co., London, England, being Designer of structural steel for mill building, theatres and hotels. *TT 3: P 3.* 1905 to 1906 Inspector of installations, The Sturtevant Eng. Co., London, inspecting factory heating and ventilating stations. *TT 1.5: P 1.5: RC 1.5.* 1907-1909 Maintenance Engr. and Surveyor for Sir Douglas Fox & Partners, Cons. Engrs., on Benquilla R. R. at Lobito Bay, South West Africa. *TT 3: P 3: RC 2.* 1910-1912 with Cartagena Ry. Co., Ltd., London, as Chf. Engr. of Constr. on 65 miles between Cartagena and Calamar, Colombia, also in charge of reconstruction of timber and reinforced piers at Cartagena Bay. *TT 3: P 3: RC 3.* 1913-1914 Engr., in charge of construction of 60 miles of ropeway between Mariquita and Manizales, Colombia, for Ropeways, Ltd., London, Sir Douglas Fox & Partners, Cons. Engrs. *TT 2: P 2: RC 2.* 1915-1916 Contr., drainage, street paving, etc., Cartagena, also various railway surveys for Govt. of Colombia. *TT 2: P 2: RC 2.* 1917-1918 Asst. Supt., Westinghouse, Church, Kerr Co. of New York, on construction of Air Nitrate Plant No. 2, Muscle Shoals, Ala. *TT 2: P 2: RC 1: D 1.* 1919 to 1923 Steel Designer, Bethlehem Steel Corporation, Sparrows Point, Md. (1 year) and Consolidated Gas Co., New York City (3 years). *TT 4: P 4: D 4.* 1924 to 1926 Steel Designer and Checker with Gibbs & Hill, Cons. Engrs. to Pennsylvania R. R. during electrification of Norfolk & West Virginia and Virginia R. Rs. *TT 3: P 3: D 3.* 1927 to date Steel Designer (bridges) with Waddell & Hardesty, Cons. Engrs., New York City. *TT 1.2: P 1.2: D 1.2.* *TT 24.8: P 24.8: RC 11.5: D 9.3.* Refers to T. E. Brown, Jr., F. de Schauensee, S. Hardesty, E. R. Hill, J. A. L. Waddell, W. G. Williams.

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(3) **INGS, JASPER HAROLD**, 38 Monk St., Ottawa, Ont., Canada. (Age 26. Born Charlottetown, Prince Edward Island.) 1925 B. A. Sc., Univ. of Toronto. *TT 4: P 4.* July to Sept. 1920 Chainman and Rodman, Canadian National Rys. May to Sept. 1921 Asst. Mechanic, Dominion Shipyards (John Inglis) Machine Shop. May to Aug. 1922 Rodman with Frank Barber & Assoc., Ltd. April to Sept. 1923 Rodman, April to Sept. 1924 and May to Aug. 1925 Instrumentman, Quebec Development Co., on hydro construction. March 1926 to June 1927 Res. Engr. and Asst. Engr. with Morrow & Beatty, Ltd., on railway and hydro construction. *TT 1.2: P 1.2: RC 0.7.* June to Sept. 1927 Draftsman and Field Engr., Spruce Falls Power & Paper Co., on maintenance, town layout. *TT 0.2: P 0.2.* Sept. 1927 to date Engr., Gatineau Power Co., design and estimates. *TT 0.8: P 0.8: RC 0.8: D 0.8.* *TT 6.2: P 6.2: RC 1.5: D 0.8.* Refers to A. C. D. Blanchard, F. H. Cothran, C. E. Legris, J. B. McRae, C. H. Mitchell, R. O. Wynne-Roberts, C. R. Young.

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(12) **IVARSSON, SIGMUND**, 431 Walker Bldg., Seattle, Wash. (Age 29. Born Trondenes, Norway.) 1924 B. E., National Inst. Tech., Trondhjem, Norway. *TT 4: P 4.* 1920 and 1921 various engagements as Draftsman, Computer, Transitman. *TT 0.8: SP 0.8.* Jan. to May 1925 Structural Draftsman, Maintenance Dept., Seattle Municipal Ry., repair and maintenance of elevated railway, design of sand-dryer and bunkers. *TT 0.3: P 0.3: D 0.3.* May 1925 to April 1926 Structural Draftsman and Designer with Hall & Stevenson,

Structural Engrs., Seattle, Wash., on design of various types of structures. *TT 1: P 1: D 1.* April 1926 to date Structural Engr. with Stuart & Wheatley, Archts. and Engrs., on design of all types of structures (buildings). *TT 2.2: P 2.2: RC 2.2: D 2.2.* *TT 8.3: SP 0.8: P 7.5: RC 2.2: D 3.5.* Refers to P. N. Carlson, H. M. Hadley, J. L. Hall, F. F. Sinks, J. H. Stevenson, M. O. Syllaasen.

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(6) **JACKSON, EUGENE KERFOOT**, 1126 Chapline St., Wheeling, W. Va. (Age 22. Born Blacksburg, Va.) 1926 B. S., Washington and Lee Univ. *TT 4: P 4.* July 1926 to Feb. 1927 Eng. Asst., Chesapeake & Potomac Telephone Co., making estimates for and laying out new pole line and cable construction, etc. *TT 0.5: SP 0.1: P 0.4.* Feb. 1927 to date Asst. on Eng. Corps, Pennsylvania R. R. Co., in charge of party in field, estimating cost of new work, masonry design, and engineering work on new construction. *TT 1.3: P 1.3. TT 5.8: SP 0.1: P 5.7.* Refers to J. A. Anderson, W. T. Lyle.

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(1) **JACQUET, ALPHONSE**, 130 Madison St., Wood Ridge, N. J. (Age 27. Born New York City.) 1928 B. S. in C. E., Cooper Union. *TT 4: P 4.* 1923 to 1928 Asst. Field Engr., Ventura Contr. Co., West New York, N. J., on concrete structures; also estimating for bids on contemplated contract. 1928 to date Asst. Engr. with Coverdale & Colpitts, New York City, on valuation work for railroads. *TT 0.2: P 0.2.* *TT 4.2: P 4.2.* Refers to H. R. Codwise, F. E. Foss, G. Morrison.

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(2) **JEWELL, ROBERT BURNETT**, 32 South Main St., Winsted, Conn. (Age 22. Born Binghamton, N. Y.) 1928 C. E., Lehigh Univ. Summer 1927 Asst. Engr. and Timekeeper, Friestedt Foundation Co., New York City, keeping time and running lines and grades on simple foundations. *TT 4: P 4.* Refers to S. A. Becker, R. J. Fogg, M. O. Fuller, J. L. Jewell, H. G. Payrow, E. H. Uhler, W. L. Wilson.

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(6) **JOHNSON, HENRY DEXTER, Jr.**, 5869 Northumberland St., Pittsburgh, Pa. (Age 30. Born Marlboro, Mass.) Student, Bates Coll., Lewiston, Me. (Oct. 1915 to March 1917), extension course, Sorbonne, Paris (April to June 1919) and School of Eng., Northeastern Univ., Boston, Mass. (Feb. to April 1921 and Dec. 1921 to April 1922). March 1917 to July 1919 Sergeant and 1st Sergeant, C. A. C., U. S. Army. *TT 1.2: SP 1.2.* Aug. 1919 to Aug. 1920 Foreman of bridge and road maintenance, City of Auburn, Me., in charge of bridge repairs and maintenance of secondary roads. *TT 0.5: SP 0.5.* Sept. to Dec. 1920 Asst. Field Engr., Turner Constr. Co., on woolen-mill building construction at Lisbon Falls, Me., giving lines and grades, computing and checking quantities. *TT 0.3: P 0.3: RC 0.3.* Jan. 1921 Gen. Foreman on drilling and blasting, Central Maine Power Co., Waterville, Me., in charge of rock excavation for Transmission Lines Div. *TT 0.1: P 0.1: RC 0.1.* May to Nov. 1921 Gen. Foreman, State Highway Comm., Maine, in charge of grading 7 miles of road. *TT 0.6: P 0.6: RC 0.6.* May 1922 to Aug. 1924 with Constr. Dept., Jones & Laughlin Steel Corporation, Alliquippa Works, Woodlawn, Pa., as Transitman, Constr. Foreman in general charge of sewer, power-house addition and pipe furnace building, and Chf. Constr. Foreman responsible for construction in pipe mills, etc. *TT 2.3: SP 0.1: P 2.2: RC 1.5.* Aug. 1924 to March 1926 Field Engr., Designer and Office Engr., Pittsburgh Dist., Dwight P. Robinson & Co., Inc., in charge of structural construction in substations, designing transmission lines and towers and in charge of local drafting room on substation and transmission line work. *TT 1.6: P 1.6: RC 1.6: D 1.1.* April to Oct. 1926 Asst. Supt., H. W. Nelson Co., Chicago, on railroad grading and excavating (\$300 000) at Woodlawn, Pa. *TT 0.6: P 0.6: RC 0.6.* Nov. 1926 to date Senior Asst. Engr. and Designing Engr., Bureau of Bridges and Structures, Dept. of Public Works, Pittsburgh, Pa., being Asst. in charge of contract construction of bridges, estimates and supervision of concrete and steel construction (approx. \$1 000 000). *TT 1.7: P 1.7: RC 1.7.* *TT 8.9: SP 1.8: P 7.1: RC 6.4: D 1.1.* Refers to H. S. Ayres, A. Haertlein, P. S. Monk, R. M. Riegel, C. M. Reppert, J. D. Stevenson, C. M. Vetter, J. T. Whitney.

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(1) **JOHNSON, LEWIS HAMILTON**, R. F. D. 4, Huntington, N. Y. (Age 44. Born Rochester, N. Y.) 1908 C. E., Rens. Pol. Inst. *TT 4: P 4.* June to Dec. 1908 Rodman, being Inspector and Instrumentman on road and bridge construction, New York State Highway Dept. *TT 0.3: SP 0.3.* Dec. 1908 to Aug. 1909 Draftsman and Designer with F. A. Shoemaker, M. E., on steam, gas and electric power-plants and special machinery. *TT 0.7: P 0.7: D 0.7.* Aug. to Dec. 1909 Instrumentman and Draftsman with J. H. Eby, on railway survey and location, Shenandoah to Pottsville, Pa. *TT 0.3: P 0.3.* Dec. 1909 to Feb. 1910 Draftsman, Lockwood, Greene & Co., on layout of new generating units in power plant of Pierce Arrow Motor Car Co. *TT 0.1: P 0.1.* Feb. to May 1910 Structural Draftsman with Wurtz

& Son, Buffalo, N. Y. *TT 0.3: P 0.3: D 0.3.* May 1910 to May 1918 Civ. Engr. and Supt. of Constr., Q. M. Gen.'s Dept., War Dept., Ft. Sill, Okla. *TT 8: P 8: RC 3.* May to Aug. 1918 County Engr., Comanche and Caddo Counties, Okla. *TT 0.3: P 0.3: RC 0.3.* Aug. 1918 to July 1919 with U. S. Army, until Oct. 1918 as Engr., Constr. Div., in charge of addition to Lake Lawtonka Dam, Medicine Park, Okla., then 1st Lieut., Corps of Engrs., in charge of work on same dam and construction of 5 000 000-gal. filter plant at Medicine Park, Okla. *TT 1: P 1: RC 1.* July 1919 to Feb. 1921 organized Lawton Constr. Co., to complete construction of sewer system and disposal plant at Ft. Sill; designed and constructed 120-ft. concrete highway bridge at Ft. Sill. *TT 1.6: P 1.6: RC 1.6.* Feb. to June 1921 and Sept. 1921 to May 1923 with David Morey, Jr., on design and (after Sept. 1921) Res. Engr. on construction of White Rock filter plant, Dallas, Tex.; installed filter equipment at Jacksonville, Tex. *TT 2: P 2: RC 1.7: D 0.3.* June to Sept. 1921 Cons. Engr.; made plans, surveys and estimates for Lawton & Medicine Park Elec. Ry. *TT 0.2: P 0.2: RC 0.2: D 0.2.* May 1923 to Sept. 1925 with Koch & Fowler, Dallas, on surveys, design and layout of subdivisions, sewer and water systems, roads and pavements. *TT 2.3: P 2.3: RC 2.3.* Sept. 1925 to July 1927 with Frank F. DuBose, on design and construction of sewer and water systems, disposal plants, and pavements. *TT 1.9: P 1.9: RC 1.9: D 1.9.* *TT 2.3: SP 0.3: P 2.7: RC 1.2: D 3.4.* Refers to J. D. Fowler, O. H. Koch, L. Long, H. N. Roberts, N. T. Veatch, Jr.

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(8) **JOHNSTONE, LESLIE INGALLS**, 428 South Clifton Ave., Park Ridge, Ill. (Age 45. Born St. Paul, Minn.) 1905 B. S. in Civ. Eng., Univ. of Me. *TT 4: P 4.* Sept. 1905 to Sept. 1907 Asst. Engr. with O. F. Doyle, Gen. Contr., St. Cloud, Minn., on surveys, estimates and construction of drainage projects, sewer and water systems for small towns, pumping station for St. Cloud, maps and plats for Office of County Auditor, etc. *TT 1: SP 1.* Sept. 1907 to Sept. 1910 Instructor in Civ. Eng., Univ. of Maine, in charge of all work in surveying, highway and sanitary engineering, and Asst. in hydraulics and railroad engineering. *TT 3: P 3.* Oct. 1910 to Sept. 1913 Lecturer, and Sept. 1913 to June 1923 (except Oct. to Dec. 1918 First Lieut., Engrs., U. S. Army) Asst. Prof. of Civ. Eng. and Director of Summer Survey School, Univ. of Manitoba, in charge of all work in surveying, geodesy, railway engineering, economics and (after Sept. 1913) hydraulics. *TT 12.6: P 12.6: RC 9.7.* June 1923 to date Superv. Field Engr. with Consoer, Older & Quinlan, Chicago, Ill., in responsible charge of design and construction of sewer and water-works systems, paving, etc. (\$6 000 000 to \$8 000 000). *TT 5: P 5: RC 5: D 2.5.* *TT 25.6: SP 1: P 24.6: RC 14.7: D 2.5.* Refers to E. E. Bankson, P. L. Bean, H. S. Boardman, C. B. Brown, E. E. Brydone-Jack, A. W. Consoer, J. N. Finlayson, A. R. Lord, C. Older, G. A. Quinlan.

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(2) **JONES, RICHARD FREDERICK, Jr.**, 124 Prospect St., New Haven, Conn. (Age 22. Born Hartford, Conn.) 1928 B. S., Sheffield Sci. School. *TT 4: P 4.* Refers to C. T. Bishop, R. S. Kirby, J. C. Tracy.

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(10) **JORDAN, ROBERT DAWSON**, 1502 Twenty-Sixth St. North, Birmingham, Ala. (Age 34. Born Lapine, Ala.) 1918 B. S. in Civ. Eng., Ala. Pol. Inst. *TT 4: P 4.* June 1918 to July 1919 2d Lieut. and later 1st Lieut., 539th Engrs., U. S. Army, on construction of buildings and camps and construction and maintenance of waterbound macadam roads and stonemasonry arch bridges. *TT 0.6: SP 0.6.* Sept. 1919 to April 1920 Draftsman and Instrumentman with Mitcham & Wright, Civ. and Cons. Engrs., Atlanta, Ga., on bridge plans, surveys, etc. *TT 0.3: SP 0.3.* April 1920 to date with State Highway Dept. of Alabama, until Jan. 1924 as Asst. Div. Engr., 3d Div., supervising highway plans, directing drafting, etc. and part of time assisting with supervision and inspection of highway construction, and since Jan. 1924 Div. Engr., 4th Div. and (since Feb. 1927) 2d Div., in charge of surveys and plans and supervising construction of road and bridge projects, etc. *TT 8.2: P 8.2: RC 8.2: D 4.5.* *TT 13.1: SP 0.9: P 12.2: RC 8.2: D 4.5.* Refers to R. P. Boyd, W. P. Butler, W. F. Fennell, H. H. Houk, G. N. Mitcham, G. L. Moulton, H. C. Wells, W. G. White.

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(8) **JORGENSEN, POUL JOHAN**, 3106 Fullerton Ave., Chicago, Ill. (Age 26. Born Benlose pr. Ringsted, Denmark.) 1924 B. S. in C. E., Royal Tech. Coll., Copenhagen, Denmark. *TT 4: P 4.* Feb. to Oct. 1924 on design, construction and supervision of timber storage buildings, with J. Jorgensen, Rygaard, pr. Ringsted, Denmark. *TT 0.7: P 0.7: RC 0.7: D 0.7.* Oct. 1924 to May 1927 Structural Draftsman designing and detailing steel structures, until April 1926 with Copenhagen Telephone Co., wire supports, then with Roberts & Shaefer Co., Chicago, Ill., coal-cleaning plants, and after Dec. 1926 with American Bridge Co., detailing bridges, mill and office buildings. *TT 2.5: P 2.5: D 2.5.* May 1927 to date Structural Designer, Chicago & Alton R. R. Co., Chicago, designing reinforced concrete and steel bridges. *TT 1.2: P 1.2: RC 1.2: D 1.2.* *TT 8.4: P 8.4: RC 1.9: D 4.4.* Refers to T. Germundsson, J. H. Heald, L. Petersen, T. Petterson, L. C. Tschudy.

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(7) JOSEPHS, ARTHUR COOK, 300 East Michigan St., Duluth, Minn. (Age 21. Born Duluth, Minn.) 1928 S. B., Mass. Inst. Tech. TT 4: P 4. Refers to C. M. Spofford, C. H. Sutherland.

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(10) KAUFFMAN, CHARLES CROUCH, 423 Candler Bldg., Atlanta, Ga. (Age 26. Born Atlantá, Ga.) 1925 C. E., Cornell Univ. TT 4: P 4. June 1925 to Jan. 1928 Chf. of Eng. Party, under O. F. Kauffman, C. E., Atlanta, Ga., on supervision, inspection, design and execution of subdivisions. TT 2.5: P 2.5: RC 2: D 0.5. Jan. 1928 to date member of firm, O. F. Kauffman & Son. TT 0.5: P 0.5: RC 0.4: D 0.1. TT 7: P 7: RC 2.4: D 0.6. Refers to W. A. Hansell, M. T. Singleton.

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(1) KAUFMAN, SOLOMON, 1647 West Elghth St., Brooklyn, N. Y. (Age 27. Born Odessa, Russia.) 1923 M. E., Brooklyn Pol. Inst. TT 4: P 4. Sept. 1925 to May 1927 Structural and Mech. Draftsman, Brooklyn Navy Yard, on design and drafting of hull and bottom of new light cruiser. TT 0.9: SP 0.9. May 1927 to date Jun. Engr., Board of Transportation, New York City, on subway and railroad yard construction. TT 0.6: SP 0.6 TT 5.5: SP 1.5: P 4. Refers to B. J. Ahearn, E. G. Haines, H. P. Hammond, D. C. Serber, E. J. Squire.

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(1) KEHOE, JOHN LINCOLN, 1444 Madison Ave., New York City. (Age 25. Born New York City.) June 1921 to April 1925 with Richard Carvel, New York City, 1½ years on transit, rod, layout work and Asst. Supt. and 2 years Supt. TT 2.4: P 1.2: RC 1.2. May to Aug. 1925 on transit, rod, and layout work and Asst. to Supt., H. H. Vought & Co., Bldrs. TT 0.1: SP 0.1. Sept. 1925 to date with Wm. F. Kenny Co., New York City, quantity estimating, cost data, expediting materials at factory. TT 1.9: SP 1.9. TT 4.4: SP 3.2: P 1.2: RC 1.2. Refers to F. A. Boyle, J. A. Jordan, E. D. Lynch, H. R. Standiford, E. H. Thompson.

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(11) KELCH, NORMAN WALLACE, 3039 Motor Ave., Los Angeles, Cal. (Age 36. Born Chillicothe, Ohio.) 1922 Certificated Archt., State of California. 1910 to 1912 Asst. Engr. with Robert Marshall, Washington, D. C., surveying, instrument work, mapping, (acting as Foreman of construction and in charge of operation of aerial tramways. TT 1.3: SP 0.8: P 0.5: RC 0.5. 1912 to 1916 with C. F. Skilling, Los Angeles, Cal., on architectural and structural design, specifications and superintendence. TT 3: SP 1: P 2: RC 1: D 1. 1916 to 1917 with John Parkinson, Los Angeles, on architectural and structural design, superintendence of reinforced concrete and heavy mill construction buildings. TT 1.5: P 1.5: RC 1.5. 1917 to 1918 Foreman of steel ship building, Los Angeles Shipbuilding & Dry Dock Co., San Pedro, Cal. TT 0.5: SP 0.5. 1918 to 1919 with Scofield Eng. Co., Los Angeles, as Foreman of steel ship construction on concrete ships (stern frames) and of pouring concrete of concrete ships. TT 0.5: SP 0.5. 1919 to date Chf. Supt. of Constr. with John Parkinson and D. B. Parkinson, Los Angeles, on steel frame, reinforced concrete and heavy mill construction, etc., including specifications, being Chf. Supt. of all work of new City Hall. TT 8.5: P 8.5: RC 8.5: D 1. TT 15.3: SP 2.8: P 12.5: RC 11.5: D 2. Refers to O. G. Bowen, M. C. Halsey, R. J. Hiller, R. Linton, A. F. J. Miller, B. Nolce, E. M. Scofield, D. M. True.

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(15) KERR, HORACE SCOTT, Box 696, Seymour, Tex. (Age 29. Born Amarillo, Tex.) 1923 B. S. in Civ. Eng., Tex. Agri. and Mech. Coll. TT 4: P 4. Summers 1921-1922 and Sept. 1923-April 1924 with Nagle, Witt & Rollins Eng. Co. on Federal Aid Highway work as follows; summer 1921 Materials Inspector, testing materials; summer 1922 Pavement Inspector; Sept. 1923 to March 1924 Asst. Engr. on design of mix for modified Topeka asphalt pavement, inspecting materials and supervising mixing during construction of 15 miles of pavement in Stephens County; after March 1924 Pavement Inspector supervising mixing and placing of sheet asphalt paving in Dallas County. TT 0.5: P 0.5: RC 0.5: D 0.5. May 1924 to date with Texas State Highway Dept., on Federal Aid Highways, until July 1927 as Asst. Engr. to Res. Engr., in Baylor County on location, plants and construction, having charge of field party on preliminary surveys and locations (3 months), assisting on plans for 80 miles of highways, consisting of grading, drainage structures of reinforced concrete and structural steel design, reinforced concrete pavement, gravel base and sledged-stone base with bituminous macadam surface (1½ years); direct supervision of part of construction of grading, concrete and steel drainage structures, reinforced concrete pavement and gravel base course (1½ years); since Aug. 1927 Res. Engr. in charge of location, plans and

construction. *TT 4.2: P 4.2: RC 4.2: D 1.8. TT 8.8: P 8.8: RC 4.8: D 2.4.* Refers to G. Gilchrist, C. S. Henning, Jr., J. J. Richey, J. G. Rollins, O. A. Seward, Jr., M. C. Welborn, J. F. Witt.

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(8) KERR, WILLIAM WAVERLEY, Jr., 815 Lake St., Oak Park, Ill. Graduating student awarded Illinois Section prize. (Age 21. Born Chicago, Ill.) 1928 B. S. in Civ. Eng., Armour Inst. Tech. *TT 4: P 4.* Summers 1926 and 1927 Rodman, Chicago & Northwestern R. R. Feb. to April 1927 revised lumber handbook of Southern Yellow Pine Association. *TT 4: P 4.* Refers to J. W. Alvord, J. R. Griffith, J. A. Moss, E. S. Nethercut, W. D. Pence, H. V. Penn, C. L. Post, R. L. Stevens.

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(3) KETCHUM, ADDISON RAYMOND, 180 Glasgow St., Clyde, N. Y. (Age 21. Born Clyde, N. Y.) 1928 B. S. in C. E., Union Coll. *TT 4: P 4.* Refers to H. Miller, W. C. Taylor.

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(1) KEUFFEL, CARL WILLIE, 744 Boulevard East, Weehawken, N. J. (Age 37. Born Hoboken, N. J.) 1911 M. E., Stevens Inst. Tech. *TT 4: P 4.* 1911 to 1912 Apprentice, Weston Electrical Instrument Co., Waverly, N. J. *TT 0.5: SP 0.5.* 1912 to 1913 Apprentice, Bureau of Standards, Div. of Weights and Measures, Washington, D. C., tape testing and standardization; also (3 days each week) graduate student in mathematics and optics, Johns Hopkins Univ. *TT 0.5: SP 0.5.* Autumn 1913 to date with Keuffel & Esser Co., Hoboken, N. J., as follows: 1913 to 1914 on design of surveying instruments; 1915 to 1920 on design and supervision of manufacture of optical parts for surveying instruments, range finders, gun sights, periscopes, etc., and developed manufacture of optical glass, and (during war) acted as Cons. Optical Engr. to U. S. Army; since 1920 in charge of Tech. and Eng. Depts.; developed color analyzer for measuring color; past few years specialized in developing improved optical systems for surveying instruments. *TT 15: P 15: RC 13: D 2. TT 20: SP 1: P 19: RC 13: D 2.* Refers C. H. Birdseye, W. Bowie, E. M. Douglas, J. K. Finch, C. V. Hodgson.

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(12) KHVOROFF, VICTOR IVANOVICH, 4714 Seventeenth Ave., N. E. Seattle, Wash. (Age 30. Born Khabarovsk, Russia.) 1928 B. S. in C. E., Univ. of Wash. Summer 1927 Leveler, Northern Pacific R. R. Co. *TT 4: P 4.* Refers to I. L. Collier, C. W. Harris, C. C. May, J. W. Miller, C. C. More.

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(15) KIDDER, HAROLD HALSEY, San Juan, Tex. (Age 36. Born Humeston, Iowa.) 1915 B. S. in Civ. and Irrigation Eng., Colo. Agri. Coll. *TT 4: P 4.* April to Sept. 1915 Engr. on survey, design, location, and (for contractor) construction, Weldona Drainage Dist., Colo. *TT 0.1: SP 0.1.* Nov. 1915 to Oct. 1916 Asst. Computer, etc., on earthwork, railroad valuation, Interstate Commerce Comm. *TT 0.5: SP 0.5.* Oct. 1916 to April 1917 with Pennsylvania Ry. Lines West, 3 months as Asst. Computer on earthwork for Interstate Commerce Comm. valuation, had field party on resurvey of C. A. & C. Div. *TT 0.4: SP 0.1: P 0.3.* April to Oct. 1917 Asst. Engr. M. of W., Wabash Ry., Chicago to Detroit Div. *TT 0.5: P 0.5.* Oct. 1917 to July 1920 (except while at Engr. Officers' Training School, Washington Barracks and Camp Humphreys, Va.) with U. S. Dept. of Agriculture, Irrigation Investigations, on operation of field stations, studies of duty of water, etc., until Sept. 1918 as Asst. Irrigation Engr., at Crystal City, Tex., and remainder of time Irrigation Engr., at field station, Plainview, Tex., in laboratory, Ft. Collins, Colo., and (after Oct. 1919) Director of irrigation work in Texas. *TT 2.3: P 2.3: RC 0.7.* July 1920 to Jan. 1923 Supt. of Irrigation, American Rio Grande Land & Irrigation Co., on operation and maintenance of pumping project (104 000 acres). *TT 2.5: P 2.5: RC 2.5.* Sept. 1923 to July 1926 Supt., Irrigation Dept., Cuyamel Fruit Co., Honduras Div., organization of forces and operation of four new irrigation projects; design and estimates of cost of gravity and pumping project for 2 600 hectares of farms. *TT 2.9: P 2.9: RC 2.7: D 0.2.* Sept. 1926 to date Engr., Irrigation and Drainage, Hidalgo County Water Improvement Dist. No. 2, San Juan, Tex., on design, plans and estimate for drainage of part of irrigation system, etc. *TT 1.9: P 1.9: RC 1.5: D 0.2.* *TT 15.1: SP 0.7: P 14.4: RC 7.4: D 0.4.* Refers to C. S. Clark, S. Fortier, J. A. Norris, R. L. Parshall, A. M. Shaw, J. Slovenko, W. O. Washington.

812

(1) KILIAN, THEODORE PHILIP, Canal and Varick Sts., New York City. (Age 43. Born New York City.) 1906 C. E., Columbia Univ. *TT 4: P 4.* Sept. 1906 to Sept. 1907 Rodman, Degnon Contr. Co., on New York and Long Island Tunnel. *TT 0.5: SP 0.5.* Nov. 1907 to Feb. 1913 (except 10 months Ill) and March 1913 to July 1914 and Aug. 1916 to July 1917 with New York Central R. R., until Feb. 1913 as Rodman to Asst. Engr.,

Office of Dist. Engr., on surveys and inspection on yard and station layouts, estimates and minor design; remainder of time Asst. Engr., Valuation Dept., on valuation of structures, investigation and research. *TT 5.1: SP 1.8: P 3.3.* Aug. 1914 to July 1916 Engr., Standard Oil Co. of New York, on preparation of geologic maps for oil exploration work in North China, preliminary investigation and design of pipe lines and roads, in Peking and Ichun, China. *TT 2: P 2: RC 1.* July 1917 to Feb. 1919 with U. S. Coast Artillery, June 1918 commissioned 2d Lieut. and Sept. 1918 1st Lieut.; Instructor in Advanced Orientation, Ft. Monroe, Va. *TT 0.5: P 0.5.* April 1919 to Oct. 1921 Engr., New York Oil Co., Casper, Wyo., on preparation of geologic maps, design and layout of natural gas lines. *TT 2.5: P 2.5: RC 1.5: D 1.* Nov. 1921 to date with New York and New Jersey Bridge and Tunnel Comms., until Aug. 1927 as Asst. Engr. and Asst. Designing Engr., Holland Tunnel, on designs and estimates of tunnel features, shafts, subways, buildings, etc., from April 1925 to Aug. 1927 in charge of squad; since Aug. 1927 Chf. Draftsman in charge of maintenance and operating designs and statistical work. *TT 6.6: P 6.6: RC 3.3: D 2. TT 21.2: SP 2.3: P 18.9: RC 5.8: D 3.* Refers to O. L. Brodie, R. E. Dougherty, O. Singstad, R. Smillie, F. A. Snyder.

813

(6) KINSEL, HARRY LYMAN, 518 Fifth Ave., Altoona, Pa. (Age 22. Born Altoona, Pa.) 1928 B. S. in San. Eng., Pa. State Coll. Summer 1927 Inspector on sewer construction, City of Altoona, Pa. *TT 4: P 4.* Refers to H. N. Benkert, R. O'Donnell, R. L. Sackett, E. D. Walker.

814

(2) KLEGERMAN, MORRIS HERMAN, 32 Holden St., Lowell, Mass. (Age 22. Born Zvill, Russia.) 1928 B. S., Mass. Inst. Tech. *TT 4: P 4.* Refers to J. B. Babcock, 3d, C. M. Spofford, C. H. Sutherland, R. G. Tyler.

815

(12) KOERNER, COURTLAND LEWIS, S. 1824 Mt. Vernon St., Spokane, Wash. (Age 25. Born St. Paul, Minn.) 1928 B. S. in C. E., Univ. of Wash. *TT 4: P 4.* June 1922 to June 1923 Instrumentman, Pacific Telephone & Telegraph Co., Spokane (Wash.) office. *TT 0.3: SP 0.3.* June 1924 to Sept. 1925 Rodman and Instrumentman, City of Tacoma, on arch dam of Cushman power project, about 6 months on contour map of damsite and yardage computation. *TT 0.5: SP 0.5.* June 1926 to Oct. 1927 Draftsman, City of Spokane, on street and sewer improvements, tracing, checking and detailing bridges. *TT 0.5: SP 0.5. TT 5.3: SP 1.3: P 4.* Refers to A. I. Buchecker, A. D. Butler, C. E. Davis, B. J. Garnett, C. C. More.

816

(7) KOMORA, ANDREW MITCHELL, 309 South Webster St., Jackson, Mich. (Age 26. Born South Bethlehem, Pa.) Registered Civ. Engr., State of Michigan. 1924 B. S. in Civ. Eng., Univ. of Mich. *TT 4: P 4.* June 1924 to date with Commonwealth Power Corporation of Michigan, until Dec. 1924 as Asst. Res. Engr. at Hohenpyl Dam, on design and supervision of construction of concrete mixing plant, design of concrete mixes and of concrete additions to power house; since then Draftsman, Designer and Checker of hydro-plants, substations, service and office buildings, structural steel and concrete, field surveys for hydro-plants and dams. *TT 4: P 4: RC 1.5: D 3. TT 8: P 8: RC 1.5: D 3.* Refers to E. M. Burd, C. T. Johnston, F. B. Kiel, E. Maerker, J. L. Schnitz, N. Van Eenam.

817

(1) KUPPUSWAMI AYYANGAR, RAGHAVA DIKSHIDAR SETLUR, Golden Rock, Trichinopoly, South India. (Age 31. Born Valuthur, Tanjore Dist., South India.) 1921 B. E. in Civ. Eng., Univ. of Madras, South India. *TT 4: P 4.* May 1920 to Nov. 1924 with Corporation of Madras, until May 1921 as Apprentice under J. W. Madeley, C. E., Special Engr., on surveying, drawing, estimating, investigation and design, then Asst. Special Engr., Special Works Dept., on design and construction of filter beds, tanks, sewers, house connection, gutters and ventilating shafts, laying distribution mains, testing pumps, etc. *TT 4.2: SP 0.3: P 3.9: RC 3.5: D 3.5.* Nov. 1924 to date Asst. Engr., South Indian Ry. Co., Trichinopoly, South India, on construction of drainage scheme and water-supply works for central workshops and town at Golden Rock, South India, comprising earthwork, roads, bridges, culverts, water supply, drainage, etc of Trichinopoly Junction remodeling works. *TT 3.8: P 3.8: RC 3.8: D 3.8. TT 12: SP 0.3: P 11.7: RC 7.3: D 7.7.* Refers to J. W. Madeley, R. D. Narasimham. (Applies in accordance with Sec. 1, Art. 1, of the By-Laws.)

818

(7) LANDSIEDEL, WILLIAM, 508 Market St., Milwaukee, Wis. (Age 31. Born Barmen, Rhld., Germany.) 1921 Baugewerks Meister, Staatliche Baugewerk Schule. *TT 2: P 2.* April 1915 to Nov. 1916 Draftsman and Estimator for commercial and industrial buildings, with Fr. & K. Roeder, Archts., Barmen, Germany. *TT 0.8: SP 0.8.* Nov. 1916 to Nov. 1918

with an Eng. Co., German Army, 6 months building trenches, dugouts, tunnels, etc., and 4 months designing. *TT 1: SP 1.* Nov. 1918-March 1919 Ill. April 1919-Aug. 1921 student, Staatliche Baugewerk Schule. Sept. to Nov. 1921 in charge of field work, excavation and concrete, and Jan. 1922 to May 1923 Constr. Engr. on design and supervision of subterranean work, foundations, retaining walls, cable wells and tunnels, hammer foundations, grading, with Fr. Kuhstohs, Contr., Barmen. *TT 1.6: P 1.6: RC 1.6: D 1.5.* Nov.-Dec. 1921 Asst. Constr. Supt., with Fr. Barnard, Contr., Essen, Germany, in charge of remodeling. *TT 0.1: P 0.1: RC 0.1.* Oct. 1923-April 1924 Structural Designer of hydro-electric plant, dam, power house and bridge, Wm. H. Dechant & Sons, C. E., Reading, Pa. *TT 0.5: P 0.5: D 0.5.* Feb. 1925 to Sept. 1927 with Cudahy Bros. Co., Cudahy, Wis., designing and supervising plant construction and remodeling. *TT 2.6: P 2.6: RC 2.6: D 2.6.* 1927 to date Structural Designer for sewage-disposal plant, Sewerage Comm. of Milwaukee. *TT 0.7: P 0.7: D 0.7.* *TT 9.3: SP 1.8: P 7.5: RC 4.4: D 5.3.* Refers to C. R. Berry, E. L. Knebes, A. L. Kurtz, H. E. Nicol, D. W. Townsend.

819

(14) **LANE, SPENCER BRIDGMAN**, 412 West Forty-Seventh St., Kansas City, Mo. (Age 38. Born Boston, Mass.) 1906 to 1909 student in Civ. Eng., Massachusetts Inst. of Technology. *TT 1.5: P 1.5.* Oct. 1909 to June 1910 Draftsman, Northern Pacific Ry. *TT 0.4: SP 0.4.* Aug. 1919 to June 1920 Engr., Kansas City (Mo.) Bridge Co., preparing drawings and designing bridges and equipment. *TT 0.8: P 0.8.* Jan. to June 1921 and Nov. 1922 to Feb. 1923 Structural Engr., Southern California Edison Co., Los Angeles, Cal., on design of structural steel and concrete for power plants. *TT 0.6: P 0.6.* Aug. 1921 to June 1922 Instrumentman, Arizona Eastern R. R. *TT 0.4: SP 0.4.* Feb. 1923 to Feb. 1924 in charge of organizing office, estimates, etc., Bldg. Contr. Dept., Union Iron Works of Los Angeles. *TT 1: P 1.* Feb. to Oct. 1924 Contr., small industrial structures in Los Angeles. *TT 0.7: P 0.7: RC 0.7.* Oct. 1924 to May 1927 Sales Mgr., Austin Co. of California, San Francisco, signed up business including engineering and construction of factories. *TT 2.7: P 2.7: RC 2.7.* June to Sept. 1927 Instrumentman, St. Louis San Francisco Ry. *TT 0.2: SP 0.2.* Sept. 1927 to May 1928 Res. Engr., for Harrington, Howard & Ash, on bridge over Colorado River at Blythe, Cal. *TT 0.7: P 0.7: RC 0.7.* May 1928 to date developing and closing new business for John Lyle Harrington, Engr., Kansas City. *TT 0.2: P 0.2.* *TT 9.2: SP 1: P 8.2: RC 4.1.* Refers to J. L. Harrington, J. B. Neely, R. L. Russell, H. P. Treadway, R. E. Ward, J. R. Worcester, J. C. Wright.

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(3) **LARGE, RANDOLPH BURDETTE**, 2507 Midland Ave., Syracuse, N. Y. (Age 25. Born Syracuse, N. Y.) 1926 C. E., Syracuse Univ. *TT 4: P 4.* Summer 1923 Rodman, State Highway Dept. of West Virginia. Summer 1924 Carpenter's Helper, Vane Co., on gas plant in Syracuse. May to Sept. 1925 and June to Aug. 1926 with Holmes & Burgdorf, Road Bldrs., Syracuse, as Timekeeper, Cost Clerk and Materialman and (1926) also Asst. Supt., supervised work, etc.; Sept. 1925 (2 weeks) Instructor in surveying camp, Syracuse Univ. *TT 0.3: P 0.3.* Aug. 1926 to June 1927 with Allen & Holmes, Cons. Engrs., as Transitman and Draftsman, secured data for appraisals and made estimates. *TT 0.7: P 0.7.* June 1927 to date with F. P. Arnold, until Oct. 1927 as Supt. in full charge of work on two highway bridges and 700 ft. of pavement at Moravia, N. Y., and since then in charge of erection of large fire doors. *TT 0.4: P 0.4: RC 0.4.* *TT 5.4: P 5.4: RC 0.4.* Refers to H. C. Allen, F. P. Arnold, L. Mitchell, S. D. Sarason.

821

(15) **LaROE, JAMES KELLER**, Box 564, Memphis, Tex. (Age 26. Born Terrell, Tex.) 1921 to date with Texas State Highway Dept., one year as Rodman with some drafting on highway plans; 1922 to June 1927 Inspector on concrete bridges and instrument work on 22 miles of highway (2 years) and in charge of mixer on paving projects in Kaufman and Liberty Counties; June 1927 to April 1928 Asst. Engr. on highway paving, Hall County; since April 1928 Inspector in charge of mixer on highway paving, Carson County. *TT 6.1: SP 1: P 5.1: RC 4.1.* Refers to T. L. Bell, Jr., W. A. French, C. L. Hasle, J. B. Oldham, T. J. Palm, M. C. Welborn.

822

(1) **LARRANAGA, PEDRO JUAN MANUEL**, Apartado 1686, Lima, Peru. (Age 35. Born Lima, Peru.) 1909 Associate in Arts, Univ. of Oxford, England. May 1911 to Aug. 1913 Chainman, Draftsman and Jun. Eng. Asst., Railway & Works Co., Ltd., London, England, during construction of North Western Ry. of Peru. *TT 1.1: SP 1.1.* Sept. 1913 to Aug. 1914 Asst. to Petroleum Geologist, also work on railways and mines. *TT 0.5: SP 0.5.* Nov. 1914 to April 1916 Asst. to Supt., City Street Improvement Co. of San Francisco, Cal., on paving contract in Antofagasta, Chile; Rock-Crusher, purchasing and general supply, also Cost Accountant, etc. *TT 0.7: SP 0.7.* Nov. 1916 to May 1919 with Imperial Oil Co., Ltd., of

Canada, in Quebec, as Road Constr. Promotor, Researcher and Constructor of bituminous paving and waterproofing; and a short time with Imperial Munitions Board at Beamsville Aerodrome. *TT 2.6: P 2.6: RC 2.6.* May 1919 to date Cons. Highway Engr. and in charge of design and construction of roads and pavements in various countries, including work for Royal Dutch Shell Group of Oil Companies, Constable, Hart & Co. and Baird & Tatlock (London), Quinlan Robinson & Janin (Montreal), Maltese, French, Greek, Egyptian, Portuguese and Peruvian Govts. *TT 9.2: P 9.2: RC 9.2: D 9.2. TT 14.1: SP 2.3: P 11.8: RC 11.8: D 9.2.* Refers to G. Boschke, W. W. Crosby, E. P. Lupfer, C. A. Mullen, H. J. B. Powell.

823

(1) LAYTON, THOMAS HENRY, Care Tanganyika Rys., Dar-es-Salaam, East Africa. (Age 45. Born Darlington, England.) 1904 received certificates in Civ. and Mech. Eng., Darlington Tech. Coll. Dec. 1899 to Feb. 1905 Pupil to Chf. Engr., Darlington (England) Ry. Plant & Foundry Co., Ltd., in workshop and drawing office. *TT 2.5: SP 2.5: D 1.* Feb. 1905 to May 1907 Draftsman with Howarth Erskine & Co., Bangkok, Siam, and (after Jan. 1906) Mexted Knott & Coles, Cons. Engrs., Hull, England. *TT 1.2: SP 1.2: D 1.2.* June 1907 to Dec. 1926 (except Feb. 1917 to May 1919 2d Lieut. and Lieut., Corps of Royal Engrs., British Army, in France, on railroad construction) with London & North Eastern Ry., until Feb. 1917 as Asst. Engr. (Civ. and Mech.), permanent way design, layouts, bridge construction, maintenance and renewals and design and construction of buildings; May 1919-Dec. 1921 Asst. Works Supt., in charge of maintenance of walls, bridges (renewals), buildings, coal shipping, Staiths, Newcastle Dist.; and after Jan. 1921 Works Supt. responsible for all engineering and permanent way works of Newcastle on Tyne Dist., rebuilding and re-organizing permanent way works (approx. cost £30 000). *TT 19.5: SP 1: P 18.5: RC 11.6: D 11.6.* Jan. 1926 to date Asst. Engr., Tanganyika Rys., East Africa, on maintenance and in charge of all capital and loan works, Dar-es-Salaam Dist., including new works (approx. cost £75 000). *TT 2.6: P 2.6: RC 2.6. TT 25.8: SP 4.7: P 21.1: RC 11.6: D 13.8.* Refers to W. S. Batham, D. G. Heslop. (Applies in accordance with Sec. 1, Art. I, of the By-Laws.)

824

(11) LeBARON, ROLLA PARKER, 1441 Twelfth St., Boulder, Colo. (Age 20. Born Dodge City, Kans.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4.* Refers to F. R. Dungan, C. L. Eckel, H. J. Gilkey.

825

(11) LEDEBOER, FREDERIC WILLIAM CORNELIUS, 5546 Bayer St., Hollywood, Cal. (Age 22. Born Utrecht, Netherlands.) 1927 B. S. in C. E., Univ. of Southern Cal. *TT 4: P 4.* June 1927 to April 1928 Rodman, and April 1928 to date Draftsman, Eng. Dept., Shell Co. of California. *TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4.* Refers to R. M. Fox, J. W. Ludlow, O. A. Stone.

826

(14) LEERMAKERS, HENRY ANTHONY, 4155 Cass St., Omaha, Nebr. Graduating student awarded Iowa Section Prize. (Age 23. Born Omaha, Nebr.) 1928 B. S. in C. E., Iowa State Coll. *TT 4: P 4.* Refers to T. R. Agg, R. A. Caughey, W. L. Foster, A. H. Fuller, F. Kerekes.

827

(4) LEONE, PETER JOSEPH, 607 Washington Sq. Bldg., Philadelphia, Pa. (Age 39. Born Philadelphia, Pa.) 1902 to 1914 Gen. St. Paving Laborer and Paver with McNichol Constr. Co., Barber Asphalt Co., Mack Paving Co., Vare Constr. Co. and Aechlone & Canuso Paving Co., all of Philadelphia, Pa. *TT 8: SP 4: P 4: RC 4.* 1914 Paving Sub-Contr., Topeka Paving Co., Schenectady, N. Y., on contract at Wilmington, Del. *TT 1: P 1: RC 1.* 1914 to 1917 Paving Contr., City of Wilmington. *TT 3: P 3: RC 3.* 1917 to 1918 Gen. Foreman, F. W. Mark Constr. Co., Philadelphia, in charge of concrete construction, foundation excavations, stripping concrete forms, placing steel reinforcements, in concrete work at Frankford Arsenal, Philadelphia. *TT 1: P 1: RC 1.* 1918 to 1919 Paving Sub-Contr. and Gen. Contr. on municipal improvements, City of Philadelphia. *TT 0.8: P 0.8: RC 0.8.* 1919 to 1920 Gen. Foreman for Geo. F. Pauling, Philadelphia Navy Yard Contr., on construction of warehouse and coffer dam for Aircraft Div., in charge of excavations for dam, all concrete works, riprap and placing sheeting. *TT 0.7: P 0.7: RC 0.7.* 1920 to 1923 Sub-Contr. for paving works and concrete structures. *TT 3: P 3: RC 3.* 1923 to date Pres. and Gen. Mgr., Municipal Paving Co. (Municipal Constr. Co., Inc); contracts since 1924 (total approx. \$2 500 000) included concrete work at League Island Bathing Beach (1924), improvement of Rising Sun Ave. from Adams Ave. to Benner St. lowering water pipes under pressure, lowering and relocating water mains, etc.

(1925) and numerous contracts for City of Philadelphia. *TT 5: P 5: RC 5. TT 22.5: SP 4: P 18.5: RC 18.5.* Refers to A. Foster, Jr., J. P. H. Hallahan, C. A. Mathews, C. E. Myers, I. S. Shenaman, E. L. Shoemaker.

828

(14) **LESLIE, CHARLES EDWARD, Jr.**, 1910 Sacramento St., St. Joseph, Mo. (Age 33. Born St. Joseph, Mo.) 1917 graduated from Kendleville Coll., Tulsa, Okla. 1912 to 1913 (vacation) Chainman and Rodman, Wm. B. Hazen Eng. Co., St. Joseph, Mo. *TT 0.5: SP 0.5.* 1917 to 1919 with U. S. Army, 5th Engrs., A. E. F. *TT 2: P 2.* 1913 to 1917 Rodman, Levelman, Draftsman, Instrumentman and Chf. Draftsman, and 1919 to 1925 half-owner, Leslie Eng. Co., St. Joseph, Mo. *TT 9.5: SP 0.5: P 9: RC 7: D 1.* 1925 to date Superv. Engr., M. K. Goetz Brewing Co., St. Joseph. *TT 3: P 3: RC 3. TT 14.5: SP 0.5: P 14: RC 12: D 1.* Refers to H. M. Brush, C. E. Jacoby, A. C. Lingley, W. M. Spann, O. A. Zimmermann.

829

(7) **LEWIS, CHARLES EDWARD**, 830 Quincey St., Rapid City, S. Dak. (Age 21. Born Amour, S. Dak.) 1928 B. S. in C. E., S. Dak. State School of Mines. *TT 4: P 4.* Refers to A. Diefendorf, J. C. Rathbun.

830

(13) **LI, WEN-PANG**, 745 Main St., Colusa, Cal. (Age 22. Born Canton, Ohio.) 1928 B. S., Coll. of Civ. Eng., Univ. of Ill. *TT 4: P 4.* Refers to H. Cross, W. C. Huntington.

831

(7) **LIDICKER, WILLIAM ZANDER**, 740 North Cambridge Ave., Milwaukee, Wis. (Age 23. Born Milwaukee, Wis.) 1927 B. S. in Civ. Eng., and 1928 M. S., Univ. of Wis. Summers 1925-1927 with Wisconsin Highway Comm., as Rodman, Draftsman, Computer, Instrumentman, Chf. of Party on relocation survey, and Inspector and Res. Engr. on paving. *TT 4: P 4.* Refers to D. W. Mead, L. F. Van Hagan, C. R. Weymouth.

832

(8) **LINDEMAN, MARVEL FRED**, 109 East Springfield Ave., Champaign, Ill. (Age 24. Born Abrams, Wis.) 1928 B. S. in C. E., Univ. of Ill. *TT 4: P 4.* Refers to W. C. Huntington, G. W. Pickels, C. C. Wiley.

833

(9) **LITTLE, CHARLES REX**, 103 University St., West Lafayette, Ind. Graduating student awarded Illinois Section prize. (Age 27. Born Akron, Ohio.) 1928 B. S. C. E., Purdue Univ. *TT 4: P 4.* Summer 1919 Tracer and Draftsman, Geo. Cutter Co., South Bend, Ind. Sept. 1919 to Sept. 1920 and June 1922 to Sept. 1923 with Studebaker Corporation, South Bend, Ind., as Computer and Instrumentman keeping progress reports and surveying, and Inspector and Party Chf., on building inspection (concrete and steel), including powerhouse construction, also yard trackage. *TT 1.6: SP 0.5: P 1.1.* July to Nov. 1921 Inspector of concrete road work, Surveyor of St. Joseph County. April to Sept. 1925 Senior Bridge Inspector, Indiana State Highway Comm., reinforced concrete and steel bridge construction. *TT 0.4: P 0.4.* Sept. 1925 to Oct. 1926 Instrumentman and Jun. Engr., on maintenance, New York Central R. R. *TT 1.1: P 1.1. TT 7.1: SP 0.5: P 6.6.* Refers to E. L. Eriksen, R. B. Wiley.

834

(5) **LIVINGSTON, IVOR**, 2036 I St. N. W., Washington, D. C. (Age 44. Born Jasper, Tenn.) 1905 B. S. in C. E., Univ. of Tenn. *TT 4: P 4.* 1905 to 1908 Chf. Engr., Tennessee Consolidated Coal Co., Tracy City, Tenn., on construction, surveying, mapping, laying out and equipping mines. *TT 2.5: P 2.5: RC 2.5.* 1908 to 1912 Chf. Engr. and Mine Supt., Campbell Coal Mining Co., at mines in Tennessee and Kentucky, opening, equipping and improving equipment of mines; in charge of construction. *TT 4.7: P 4.7: RC 4.7.* 1912 to 1915 Supt. of operations, State Mines, Petros, Tenn. *TT 2.8: P 2.8: RC 2.8.* 1915 to 1918 in charge of laying out, construction and operation, First Creek Coal Co., Hazard, Ky. *TT 3.6: P 3.6: RC 3.6.* 1918 to 1924 Chf. Engr., Harlan Coal Co. of Louisville, Ky. examining and reporting on coal properties, laying out, opening and equipping mines; in charge of construction. *TT 5.7: P 5.7: RC 5.7.* 1924 to date Valuation Engr., Income Tax Unit, on valuation of coal properties, examination and reports on properties. *TT 4: P 4: RC 4. TT 27.3: P 27.3: RC 23.3.* Refers to A. C. Adair, R. E. Adams, A. Bonnyman, C. R. Bourland, D. T. Corning.

835

(8) **LLOYD, CLEMENT VIVIAN**, 509 West Vermont Ave., Urbana, Ill. (Age 29. Born Jamaica, British West Indies.) 1928 B. S., Univ. of Ill. *TT 4: P 4.* Refers to H. Cross, J. J. Doland, W. C. Huntington, G. W. Pickels, W. H. Rayner, C. C. Wiley.

836

(10) LONG, JOHN AUDLEY, P. O. Box 1895, Ft. Myers, Fla. (Age 36. Born Fredericksburg, Ohio.) Registered Prof. Engr., State of Florida. Jan. to Aug. 1911 Chainman, Rodman and Draftsman on mine and land surveys in Illinois. *TT 0.3: SP 0.3.* Aug. 1911 to Jan. 1913 Chainman and Rodman, and Aug. 1913 to Jan. 1914 Chainman, Illinois Central R. R. Co. *TT 0.9: SP 0.9.* Jan. to Aug. 1913 contracting tile drainage and land surveying, Illinois. *TT 0.6: P 0.6: RC 0.6: D 0.6.* Jan. 1914 to Sept. 1916 on drainage and land surveying, Leake County, Miss. *TT 2.7: P 2.7: RC 2.7: D 2.7.* Sept. 1916 to Sept. 1918 contracting, design and supervision on highway engineering, Leake and Madison Counties, Miss. *TT 2: P 2: RC 2: D 2.* June to Sept. 1918 and Jan. 1920 to Nov. 1924 with Mississippi State Highway Dept., on highway engineering State and Federal Aid projects, in responsible charge of location and construction, after Jan. 1920 as Project and Locating Engr.; until Sept. 1918 also contracting. *TT 4.8: P 4.8: RC 4.8: D 4.8.* Sept. 1918 to Jan. 1919 with U. S. Army at Camp Pike, Little Rock, Ark. Jan. 1919 to Jan. 1920 Chf. Constr. Engr., Alexander Eng. Co., Eureka Springs, Ark., on highway and general engineering. *TT 1: P 1: RC 1: D 1.* Nov. 1924 to Nov. 1925 Asst. County Engr., and Nov. 1925 to date County Engr., Lee County, Fla., on highway and general engineering. *TT 3.7: P 3.7: RC 3.7: D 3.7.* *TT 16.1: SP 1.2: P 14.9: RC 14.9: D 14.9.* Refers to E. C. Brown, C. W. Cooper, H. C. Dietzer, W. W. Fineren, J. C. Pinney, H. D. Shaw, L. M. Shumaker, D. J. Simmons, G. W. Simons, Jr.

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(1) LOOK, FREDERICK WARREN, 12 Smith St., Paterson, N. J. (Age 33. Born Boston, Mass.) 1914 B. S., Va. Mil. Inst.; 1915 Ph. B., Sheffield Sci. School. *TT 4: P 4.* Sept. 1915 to April 1916 Transitman, engineering office, F. H. Trow, Kingston, N. Y. *TT 0.3: SP 0.3: D 0.3.* April 1916 to April 1917 Foreman on brick pavement, railroad construction, including earthwork and reinforced concrete, Winston & Co., Kingston. *TT 1: P 1: RC 1.* Sept. 1917 to April 1919 2d Lieut., Engrs., U. S. Army. *TT 1.7: P 1.7: RC 1.7.* May to Nov. 1919 Chf. of field party on irrigation work for Idaho Land Development Co., Buhl, Idaho. *TT 0.4: P 0.4: D 0.4.* Aug. to Dec. 1920 Chf. of field party, pulpwood and farm land surveys. *TT 0.4: P 0.4: RC 0.4.* Jan. 1921 to Jan. 1922 with Herbert S. Swan, New York City, as Chf. Draftsman on city planning and zoning work, Paterson, N. J. *TT 1: P 1: D 1.* Feb. 1922 to Feb. 1925 sub-contracting on Providence Water Supply construction, Winston & Co. *TT 3: P 3: RC 3.* Feb. to Sept. 1925 Power Engr., Twin State Gas and Electric Co., Boston, Mass. *TT 0.6: P 0.6: D 0.6.* Sept. 1925 to June 1928 contracting on real estate developments as F. W. Look Co., Boston, Mass. *TT 2.7: P 2.7: RC 2.7.* *TT 15.1: SP 0.3: P 14.8: RC 8.8: D 2.3.* Refers to J. Breuchaud, J. R. Breuchaud, H. A. Briggs, W. W. Peabody, H. H. Wilson, F. E. Winsor.

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(9) LUNDQUIST, EUGENE EDWARD, 225 Taney St., Gary, Ind. (Age 20. Born Laurel, Nebr.) 1928 B. Sc. in Civ. Eng., Univ. of Nebr. Two summers Gravel Inspector, Nebraska Dept. of Public works. June 1928 to date with American Bridge Co., Gary, Ind. *TT 4: P 4.* Refers to C. M. Duff, M. I. Evinger, H. J. Kesner, C. E. Mickey.

839

(14) MACA, LEON FRANCIS, 506 Linden Ave., Crete, Nebr. (Age 22. Born Crete, Nebr.) 1928 B. S. in Arch. Eng., Univ. of Nebr. Summer 1924 Rodman, and summer 1927 Draftsman for H. A. Davis, Cons. Engr., Crete, Nebr. *TT 4: P 4.* Refers to H. A. Davis, C. M. Duff, M. I. Evinger, H. J. Kesner, C. E. Mickey.

840

(13) MACY, FREDERICK OLIVER, Travelers Hotel, Martinez, Cal. (Age 23. Born St. Croix Falls, Wis.) 1928 A. B. in C. E., Stanford Univ. Sept. 1927 to Jan. 1928 Asst. Instructor, Stanford Univ., in charge of field work survey class. *TT 4: P 4.* Refers to H. H. Ferrebee, R. F. Kraft, L. B. Reynolds, C. B. Wing.

841

(1) MACZKO, ALBERT STEPHEN, 283 Main Ave., Passaic, N. J. (Age 25. Born Passaic, N. J.) 1928 B. S. in C. E., Rutgers Univ. Summer 1926 Checker and Inspector with Post & McCord. *TT 4: P 4.* Refers to E. H. Rockwell, S. A. Stephenson, Jr.

842

(1) McCOLL, JOHN ROME, 184 Linwood Ave., Ridgewood, N. J. (Age 35. Born St. Thomas, Ont., Canada.) Licensed Prof. Engr., New York State. 1919 B. A. Sc. in C. E., Univ. of Toronto. *TT 4: P 4.* April 1910 to Sept. 1912 with Dominion Bridge Co., Winnipeg, Manitoba, in office, field and shop on construction of steel bridges and office buildings. *TT 1.2: SP 1.2.* April to Oct. 1914 Instrumentman, Canadian Pacific R. R. May to Dec. 1915 with Imperial Govt. Munition Board, Toronto, Ontario, as Chf. Inspector of manufacture of war materials at Russell Motor Car Co.'s shops. *TT 0.4: SP 0.4.* Dec. 1915 to Jan. 1919

with Canadian Expeditionary Force in Canada, England and France, being non-commissioned officer and Lieut., 124th Battalion and 11th Engrs., on tunneling, road construction, railroad location, construction and maintenance, bridges and pontooning, engineering reconnaissance. *TT 2.5: SP 0.5: P 2: RC 2: D 2.* May to Nov. 1919 Engr., Municipality of Caledonia, Ontario, in charge of reconstruction of sewer and highways. *TT 0.6: P 0.6: RC 0.6: D 0.6.* Nov. 1919 to Oct. 1920 Draftsman, Inspector and Designer on steel and concrete buildings, Westinghouse, Church, Kerr and Dwight P. Robinson, New York City. *TT 0.7: SP 0.2: P 0.5: D 0.5.* Oct. 1920 to date with Thomas E. Murray, Inc., New York City, until April 1921 as Asst. to Civ. Engr., estimating, preparing contracts and specifications and since then Asst. Civ. Engr. in responsible charge of design and construction of power houses, substations, garage, warehouse and office buildings, also supervising preparation of estimates and contracts. *TT 7.5: P 7.5: RC 7.5: D 3.5.* *TT 16.9: SP 2.3: P 14.6: RC 10.1: D 6.6.* Refers to C. B. Grady, F. A. Holby, G. A. Hughes, J. C. Ogden, G. A. Orrok, E. M. Van Norden.

843

(8) **McCONOCHIE, WILLIAM ROBERT**, 1611 Twelfth Ave., Rock Island, Ill. (Age 22. Born Rock Island, Ill.) 1928 B. S. in C. E., Mich. Univ. *TT 4: P 4.* Refers to W. J. Emmons, R. L. Morrison, W. C. Sadler, R. H. Sherlock, R. S. Swinton, C. O. Wisler, J. S. Worley.

844

(1) **McCord, HERBERT WEYMOUTH**, 405 Sanford Ave., Flushing, N. Y. (Age 24. Born Flushing, N. Y.) 1927 C. E., Lehigh Univ. *TT 4: P 4.* Nov. 1927 to date Inspector and Draftsman for Post & McCord, Inc., New York City. *TT 0.3: SP 0.3.* *TT 4.3: SP 0.3: P 4.* Refers to R. J. Fogg, H. G. Payrow, A. Weymouth.

845

(15) **McCORKINDALE, RALPH IRVING**, 504 Van Zandt Bldg., Ft. Worth, Tex. (Age 45. Born Troy, N. Y.) Sept. 1901 to 1905 student, Rensselaer Polytechnic Inst. *TT 1.5: P 1.5.* July to Oct. 1905 Cement Tester and Rodman, Holyoke (Mass.) Water Power Co. *TT 0.2: SP 0.2.* Oct. 1905 to July 1906 Inspector of excavation and Transitman, Westinghouse, Church, Kerr & Co., New York City. *TT 0.4: SP 0.4.* Aug. 1906 to May 1908 Elec. Estimator and Draftsman and (after Nov. 1907) Asst. Mgr., Mech. Dept., Thompson-Starrett Co., New York City. *TT 1.2: SP 0.6: P 0.6: RC 0.6.* June 1908 to March 1909 Steel Inspector and Draftsman, J. R. Worcester & Co., Boston, Mass., some design. *TT 0.7: P 0.7: D 0.2.* April 1909 to Dec. 1911 Chf. Inspector, Mech. Div., Pittsburgh Dist., Isthmian Canal Comm. *TT 1.7: P 1.7: RC 0.7.* Dec. 1911 to April 1916 Master Mechanic, Parsons Paper Co., Holyoke, Mass. *TT 4.3: P 4.3: RC 4.3.* April 1916 to Oct. 1919 Engr., L. E. Locke & Son, Lawrence, Mass., on layouts for new construction, drafting and estimates, Contr.'s Supt. *TT 3.5: P 3.5: RC 1.5: D 0.5.* Oct. 1919 to May 1924 Engr., Ludlow Mfg. Associates, in complete charge of erection of jute mill (value \$5 000 000) at Calcutta, India, and (3 years) Mill Mgr. *TT 4.6: P 4.6: RC 1.6: D 1.* Oct. 1924 to March 1928 Res. Engr., on construction for Chas. T. Main, Inc., Boston. *TT 3.4: P 3.4: RC 1.5: D 0.4.* March 1928 to date Supt., Thos. S. Byrne, Inc., Contrs. (loaned by Chas. T. Main, Inc.) in charge on erection of reinforced concrete building (\$2 000 000) for Montgomery Ward & Co., Ft. Worth, Tex. *TT 0.2: P 0.2: RC 0.1.* *TT 21.8: SP 1.2: P 20.6: RC 10.4: D 2.2.* Refers to T. S. Byrne, F. M. Gunby, C. T. Main, H. E. Sawtell, W. F. Uhl

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(8) **McCoy, MILTON HOWARD**, 209 West Sixteenth St., Chicago Heights, Ill. (Age 43. Born Chicago Heights, Ill.) 1908 B. S., Univ. of Ill. *TT 4: P 4.* June to Dec. 1908 on construction and location, Joliet & Eastern Traction Co. *TT 0.2: SP 0.2.* Jan. 1909 to May 1913 Chf. Engr., Chicago Heights Terminal R. R. and Chicago Heights Land Association, special railroad, general survey and improvement work. *TT 4.3: P 4.3: RC 4.3: D 4.3.* May 1913 to July 1924 City Engr. of Chicago Heights, and July 1919 to date member of firm, McCoy & Mulford, Chicago Heights, on municipal improvements, surveying, etc., for various towns in Illinois (names given in application). *TT 15.2: P 15.2: RC 15.2: D 15.2.* *TT 23.7: SP 0.2: P 23.5: RC 19.5: D 19.5.* Refers to N. E. Anderson B. D. Barker, D. J. Brumley, H. P. Ramey, L. K. Sherman.

847

(8) **McKEAGUE, EDWARD DANIEL**, 9232 Woodlawn Ave., Chicago, Ill. (Age 27. Born Chicago, Ill.) 1927 B. S., and 1928 M. S., Univ. of Ill. *TT 4: P 4.* May 1918 to May 1919 Shop Draftsman, New York, Chicago & St. Louis R. R., Stony Island Shops, Chicago, Ill. *TT 0.5: SP 0.5.* June to Sept. 1919 Draftsman, Link-Belt Co., Chicago. *TT 0.1: SP 0.1.* Sept. 1919 to Sept. 1923 Draftsman, Green Eng. Co., East Chicago, Ind., tracing, sketching and detailing parts for chain-grate stokers, ash conveyors, and coal- and

ash-hoppers; calculated pressures, detailed and designed structural members and inspected fabricated steel for hoppers. *TT 2: SP 2. TT 6.6: SP 2.6: P 4.* Refers to H. E. Babbitt, H. Cross, W. C. Huntington, M. S. Ketchum, F. E. Richart, T. C. Shedd, W. M. Wilson.

848

(3) **McMANUS, JOHN HERBERT**, 82 Johnston Ave., Kingston, N. Y. (Age 46. Born Boston, Mass.) 1905 B. S., Mass. Inst. Tech. *TT 4: P 4.* Oct. 1905 to May 1906 Asst., Civ. Eng. Dept., Massachusetts Inst. of Technology. *TT 0.7: P 0.7.* June 1906 to date with Board of Water Supply, New York City, as follows: June 1906 to 1910 Asst. Engr., on railroad relocation, topography, stream-flow measurements, preparation of claim defense data, on estimates and design for dam, bridge, retaining walls, conduit and drainage system and (after spring 1909) on construction of Olive Bridge Dam and appurtenant structures; Spring 1910 to summer 1913 First Asst. to Sec. Engr. on construction of Ashokan headworks, including lower gate chamber, special aqueducts, aerator, screen chambers, 17-ft. aqueduct, Venturi meter, channels and highways, and (after 1913) on construction of Stone Church and Spillway reinforced concrete bridges; winters on claim defense data; since 1913 with Bureau of Claims until Spring 1914 as Asst. to Chf. preparing defense of land and water-right claims, 1914 to 1915 and 1918 to 1919 Acting Chf., 1915 to 1918 First Asst. to Chf., and since 1919 Chf. of Bureau. *TT 22: P 22: RC 15: D 3. TT 22.7: P 22.7: RC 15: D 3.* Refers to C. E. Davis, W. E. Fuller, G. G. Honness, W. D. Hubbard, T. Merriman, J. W. Smith.

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(12) **McMURRAY, DONALD IRVINE**, 702 Second Ave., Aberdeen, Wash. (Age 22. Born Aberdeen, Wash.) 1928 A. B., Civ. Eng. Dept., Stanford Univ. *TT 4: P 4.* Refers to J. C. L. Fish, C. Moser, L. B. Reynolds, C. B. Wing.

850

(4) **McNEE, THOMAS LEE**, 6132 Kingsessing Ave., Philadelphia, Pa. (Age 22. Born Philadelphia, Pa.) 1928 B. S. in Civ. Eng., Villanova Coll. *TT 4: P 4.* Refers to G. H. Shaw, J. J. Sweeney.

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(2) **MANGURIAN, GEORGE NISHAN**, 52 Melrose St., Arlington, Mass. (Age 22. Born Springfield, Mass.) 1928 B. S., Mass. Inst. Tech. Summer 1927 Prov. Jun. Asst. Engr., New York Dept. of Public Works, Highway Div., Syracuse, N. Y., inspecting, etc. *TT 4: P 4.* Refers to J. B. Babcock, 3d, C. B. Breed, C. M. Spofford.

852

(7) **MANNEROW, CARL EDWARD**, Clawson, Mich. (Age 23. Born Coldwater, Mich.) 1928 B. S. in C. E., Mich. State Coll. *TT 4: P 4.* Summer 1924 and May 1925 to May 1926 Instrumentman, Michigan State Highway Dept. *TT 0.5: SP 0.5.* May to Sept. 1926 Asst. Engr., Village of Clawson, Mich. *TT 0.2: SP 0.2. TT 4.7: SP 0.7: P 4.* Refers to C. L. Allen, C. M. Cade.

853

(6) **MARCHBANK, JAMES HUGH**, Jones and Laughlin Bldg., Pittsburgh, Pa. (Age 22. Born Minneapolis, Minn.) 1928 B. S. in Civ. Eng., Kans. State Agri. Coll. *TT 4: P 4.* June 1924 to Sept. 1925 and Summer 1927 Structural Draftsman, American Bridge Co., Gary, Ind. *TT 0.6: SP 0.6.* June 1928 to date Asst. Designing Engr., Jones & Laughlin Steel Corporation, Pittsburgh, Pa. *TT 0.1: P 0.1. TT 4.7: SP 0.6: P 4.1.* Refers to L. E. Conrad, F. W. Dencer, F. F. Frazier, M. W. Furr, C. H. Scholer, V. C. Ward, L. V. White.

854

(11) **MARKS, CONSTANT ROBERTS**, 3d, Montrose, Colo. (Age 21. Born Sioux City, Iowa.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4.* Refers to F. R. Dungan, C. L. Eckel, H. J. Gilkey.

855

(9) **MARNET, HERMANN**, 10317 Clifton Boulevard, Cleveland, Ohio. (Age 26. Born Frankfurt am Main, Germany.) 1925 Diplom Engr., and 1928 Doc. Eng., Technische Hochschule, Darmstadt, Germany. *TT 4: P 4.* July 1925 to Jan. 1926 Designer with Deutsche Baugesellschaft, Frankfurt am Main, Germany, designing and checking reinforced concrete and steel structures. *TT 0.5: P 0.5: RC 0.5: D 0.5.* Jan. 1926 to Feb. 1928 Asst. Engr. with Baurat Dr. Ing. Scheelhaase, Frankfurt am Main, designing water-works, water supply, waterproofing, reinforced concrete and steel structures and checking. *TT 2.1: P 2.1: RC 2.1: D 2.1.* May 1928 to date Draftsman, Cleveland (Ohio) Union Terminals Co., detailing, designing and checking reinforced concrete and steel structures. *TT 0.2: P 0.2. TT 6.8: P 6.8: RC 2.6: D 2.6.* Refers to D. R. Arnold, Jr., F. L. Gorman, H. Kercher, C. P. Marsh, R. E. Petty.

856

(5) **MASSEY, JAMES STUART**, Post Oak, Va. Graduating student awarded Virginia Section Prize. (Age 19. Born Post Oak, Va.) 1928 B. S., Va. Pol. Inst. *TT 4: P 4*. Refers to R. B. H. Begg, A. C. Dunn.

857

(14) **MASSMAN, HENRY JOSEPH, Jr.**, 3663 Madison Ave., Kansas City, Mo. (Age 22. Born Kansas City, Mo.) 1928 B. S. in Civ. Eng., Univ. of Notre Dame. *TT 4: P 4*. Refers to G. F. Maitland, H. P. Treadway, R. E. Wachter.

858

(13) **MEIKLE, ROY VANCE**, Turlock, Cal. (Age 43. Born Fowler, Ohio.) 1902 to 1906 student, Stanford Univ. *TT 1.5: SP 1.5*. 1906 to 1907 Draftsman, Water Dept., Portland, Ore. *TT 0.5: SP 0.5*. 1907 to 1909 with City of Tacoma, one year as Draftsman, Water Dept., and one year Chf. of Party and Draftsman. *TT 2: P 2: D 1*. 1909 to 1911 Chf. of Party and Asst. Engr., Rogue River Valley Canal Co. *TT 2: P 2: D 1*. 1911 to 1912 with U. S. Dept. of Agriculture. *TT 1.5: P 1.5*. 1912 to 1914 Asst. Engr., and 1914 to date Chf. Engr. Turlock Irrig. Dist. also 1921 to 1923 Chf. Engr., Don Pedro Project, Turlock and Modesto Irrig. Dists. 1924 to 1926 Chf. Engr. and Mgr., Merced Irrig. Dist., Exchequer Project and since 1927 Chf. Engr., Modesto Irrig. Dist., at present on construction of additional 15 000 kw. at San Pedro Dam. *TT 15.5: P 15.5: RC 14*. *TT 23: SP 0.5: P 22.5: RC 14: D 2*. Refers to J. Q. Barlow, A. P. Davis, E. C. Eaton, E. Hyatt, Jr., M. M. O'Shaughnessy, R. White, A. J. Wiley.

859

(10) **MERRITT, WILL DOCKERY**, East Rockford St., Mt. Airy, N. C. (Age 23. Born Mt. Airy, N. C.) 1928 B. S. in Civ. Eng., Univ. of N. C. *TT 4: P 4*. Refers to G. M. Braune, T. F. Hickerson, H. F. Janda.

860

(11) **MESERVE, FRANK PIERCE, Jr.**, 3410 South Gramercy Pl., Los Angeles, Cal. (Age 22. Born Redlands, Cal.) 1927 B. S. in C. E., Cal. Inst. Tech. *TT 4: P 4*. Summer 1926 and June 1927 to date Jun. Draftsman, Los Angeles County Road Dept., tracing, computing, etc., and (after June 1927) on design of reinforced concrete hydraulic and highway structures, checking design and details and supervising design of hydraulic structures. *TT 1: SP 0.1: P 0.9*. *TT 5: SP 0.1: P 4.9*. Refers to E. A. Burt, F. J. Converse, O. F. Coolcy, R. R. Martel, W. W. Michael, F. Thomas.

861

(3) **MEYER, CORNELIUS ROBERT HENRY**, 8 Fuller St., Schenectady, N. Y. (Age 23. Born Schenectady, N. Y.) 1928 B. S. in C. E., Union Coll. Summer 1925 on maintenance, West Shore R. R. Summer 1926 with The Foundation Co., New York, on foundations for large office building. Summer 1927 Jun. Asst. Engr. (Grade 1, field), New York State Highway Dept., on design of roads, bridge approaches and curve elimination projects. Oct. 1927 to March 1928 (while student) Draftsman, Schenectady Ry. Co. *TT 4: P 4*. Refers to H. Miller, W. C. Taylor.

862

(1) **MILLER, CHARLES ADDISON**, 233 Kensington Road, East Lansing, Mich. (Age 46. Born Mt. Vernon, Ohio.) 1907 C. E., Ohio State Univ. *TT 4: P 4*. 1904 to 1906 Asst. Div. Engr., Cleveland, Cincinnati, Chicago & St. Louis Ry., on maintenance. *TT 2: P 2: RC 2*. 1907 to 1909 Chf. Draftsman on construction, Illinois Central Ry. *TT 2: P 2: RC 2*. 1909 to 1911 Prin. Asst. Div. Engr., Chicago & North Western Ry., on maintenance. *TT 2: P 2: RC 2*. 1911 to 1920 Prof. of Civ. Eng., and Head of Coll. of Eng., Ohio Northern Univ. *TT 9: P 9: RC 9*. 1920 to 1922 and 1923 to date Instructor in Civ. Eng., first at Ohio State Univ. and since 1923 at Michigan State Coll. Summers 1924-1927 Bridge Designer, reinforced concrete bridge design, Michigan Highway Dept. *TT 7: P 7: D 1*. *TT 26: P 26: RC 15: D 1*. Refers to C. L. Allen, C. M. Cade, C. A. Mellick, C. T. Morris, L. J. Rothgery, H. C. Woods.

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(11) **MILSTEIN, PHILIP**, 1527 St. Paul St., Denver, Colo. (Age 20. Born Denver, Colo.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4*. Refers to R. L. Downing, F. R. Dungan, C. L. Eckel, H. J. Gilkey.

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(11) **MITCHELL, SIDNEY JAY**, R. 3, Box 209, Boulder, Colo. (Age 24. Born Kansas City, Mo.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4*. Refers to F. R. Dungan, C. L. Eckel.

865

(8) **MOORE, CHARLES HERBERT**, 6 North Michigan Ave., Chicago, Ill. (Age 22. Born Milwaukee, Wis.) 1927 C. E., Cornell Univ. *TT 4: P 4*. Summer 1926 Instrumentman, Jerry Donohue Eng. Co., Sheboygan, Wis. June 1927 to date Draftsman with Pearse,

Greeley & Hansen, on hydraulic and sanitary engineering. *TT 1: SP 1.1. TT 5.1: SP 1.1: P 4.* Refers to E. N. Burrows, S. A. Greeley, P. Hansen, H. N. Ogden, R. Y. Thatcher, E. B. Whitman.

866

(10) **MOORE, JOHN MARION**, State Highway Dept., Huntingdon, Tenn. (Age 22. Born Charleston, S. C.) 1928 B. S. in C. E. Ga., School Tech. *TT 4: P 4.* June to Oct. 1924 Asst. to Engrs., Sanford & Brooks Co. of Baltimore, Md., on construction of large concrete bridge across Cooper River at Charleston, S. C. June 1928 to date Design Mix Inspector, Div. IV, Tennessee State Highway Dept., testing samples of concrete and designing concrete mixtures. *TT 4: P 4.* Refers to R. P. Black, R. S. Fiske, W. A. Hansell, J. E. Moreland, F. C. Snow.

867

(2) **MORELAND, EDWARD LEYBURN**, 31 St. James Ave., Boston, Mass. (Age 43. Born Lexington, Va.) 1905 A. B., Johns Hopkins Univ. 1908 M. S., Mass. Inst. Tech. *TT 4: P 4.* Oct. 1908 to July 1918 with D. C. & Wm. B. Jackson, Cons. Engrs., of Chicago and Boston, until Dec. 1912 as Asst. Engr., part of time being Personal Asst. to D. C. Jackson; Dec. 1912 to Dec. 1915 Mgr., Boston Office, having general supervision of work after Jan. 1916 member of firm; firm has designed and supervised construction of electric power plants (steam driven and hydro-electric), made investigations, reports, etc. *TT 9.5: P 9.5: RC 5.5.* Aug. 1918 to June 1919 Capt. and Major, Engr. Corps, U. S. Army, in France with Technical Board on co-ordination and procurement of mechanical and electrical power for Army. *TT 0.8: P 0.8: RC 0.8.* Oct. 1919 to date member of firm Jackson & Moreland, Boston, being Mgr. having direct supervision and responsibility for all work of firm, which included design and supervision of construction of a retail store building (approx. \$350,000), and hydroelectric development (10,000 kw.) plans and installation of 5,000-kw. steam turbine with steam boilers (1,300 h.p.), including revamping switching equipment and installing new intake and discharge tunnels for circulating water, for Taunton municipal lighting plant; studied and advised Philadelphia Elec. Co. on engineering and economic possibilities of Conowingo project on Susquehanna River; firm is at present Cons. Engrs. for Great Northern Ry. Co. on electrification of 75 miles (23 miles completed) of main line in Cascade Mts., including new long tunnel (under consideration); supervises detail plans, specifications and construction of substations, transmission, distribution and overhead contact systems and on large electric locomotives; also Cons. Engrs. for Delaware, Lackawanna & Western R. R. Co. in charge of electrification of suburban service in New Jersey (approx. 175 miles of track); plans, specifications and supervision of construction for revamping switching equipment in 4,500-kw. generator station and design of new 10,000-kw. substation and revamping distribution system for Humble Oil & Refining Co. near Houston, Tex.; design and supervision of construction of 3-story warehouse of approx. 700,000 cu. ft., etc. *TT 8.8: P 8.8: RC 8.8. TT 23.2: P 23.2: RC 14.2.* Refers to E. H. Cameron, F. M. Gunby, D. C. Jackson, W. B. Jackson, G. A. Orrok, W. W. Pagon.

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(9) **MORRIS, WILLIAM CHESTER**, 211 North Main St., Lawrenceburg, Ky. (Age 35. Born Quinton, Ala.) 1923 B. S. in C. E., Ala. Pol. Inst. *TT 4: P 4.* June to Aug. 1923 Student Engr. on pole-line construction and maintenance, American Telephone & Telegraph Co., Long Lines Dept. *TT 0.1: SP 0.1.* Sept. 1923 to April 1924 Inspector, Alabama Highway Dept. *TT 0.3: SP 0.3.* May 1924 to date with Southern Ry., until Jan. 1926 as Asst. Engr. on surveys, plans, estimates for tracks, bridges, buildings, etc., inspection of construction, design of mechanical sand-handling plant, turntable tractor, etc., and mapping, and since Feb. 1926 Roadway Supervisor, on organization and direction of maintenance and supervision of construction of tracks, bridges, etc. *TT 4: P 4: RC 2.8: D 0.3. TT 8.4: SP 0.4: P 8: RC 2.8: D 0.3.* Refers to C. A. Baughman, J. A. C. Callan, H. A. Metcalfe, H. E. Tyrrell, A. A. Woods.

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(7) **MORSE, FLOYD CHESTER**, 2480 Tuxedo, Detroit, Mich. (Age 35. Born Bay City, Mich.) 1915 B. C. E., Univ. of Mich. *TT 4: P 4.* April 1915 to April 1916 Rodman and Chainman, Ann Arbor R. R. *TT 0.5: SP 0.5.* April to Sept. 1916 with Russell A. Murdoch, Detroit, Mich., as Chf. of Party on surveys, staking subdivisions, giving line and grade for sidewalks. *TT 0.4: P 0.4.* Sept. 1916 to April 1917 Asst. on Eng. Corps, Toledo Div., Pennsylvania R. R., on surveys and plans for sidings, line and grade on tracks. *TT 0.7: P 0.7.* April to Sept. 1917 Asst. Engr. with County Engr., Macomb County, Mich., had charge of party on surveys, staking drains and roads, making computations and plans. *TT 0.4: P 0.4.* Sept. 1917 to date (except Dec. 1917 to July 1919 Private, Co. H, 23d Engrs., U. S. Army, repairing and building roads) with City Engr.'s office, Detroit, engaged as follows: Sept. to Dec. 1917 Draftsman computing, plotting, mapping; Sept. 1919 to July

1920 Instrumentman (3 months) and acting Chf. of Party on surveys (7 months); July 1920 to July 1923 Chf. of Field Party on surveys, street opening and widening, grade separations, establishing line and grade, making changes in plans; July 1923 to March 1925 Engr. of Paving Inspection, in charge of street and alley paving inspection, studies of special paving problems, changes of plans, revision of paving specifications, etc.; March 1925 to Aug. 1927 Engr. of General Inspection, in charge of paving, sewer, sidewalk and permit inspection; made studies of special construction problems, etc.; since Aug. 1927 Chf. Engr. of Tests, in charge of sampling and testing construction materials, under Dept. of Public Works, making special studies of methods of construction, materials, revision of specifications, investigation of special problems. *TT 9.9: SP 1: P 8.9: RC 8.6. TT 15.8: SP 1.5: P 14.3: RC 8.6.* Refers to W. H. Dorrance, 4th, P. A. Fellows, M. R. Fisher, A. H. Place, J. W. Reid, M. F. Wagnitz, J. H. Wasson.

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(12) MORSE, ROY WINCHESTER, 4709 Nineteenth Ave. N. E., Seattle, Wash. (Age 22. Born Seattle, Wash.) 1928 B. S. in C. E., Univ. of Wash. Summer 1924 Draftsman with W. C. Morse, tracing, etc. Summer 1925 General Handyman with Morse & Wiley, Inc., on municipal water supply system for City of Port Angeles. Summer 1926 on development of factory machinery, Pacific Feather Co. Summer 1927 Engr.'s Asst., Public Service Production Co., estimating, etc. *TT 4: P 4.* Refers to N. A. Carle, J. B. Hamilton, C. C. More, W. C. Morse, C. D. Pollock.

871

(1) MOTA, CANDELARIO CALOR, Box 131, Marina Station, Mayaguez, Porto Rico. (Age 30. Born Aguadilla, Porto Rico.) 1924 B. S., and 1927 M. S., Mass. Inst. Tech. *TT 4: P 4.* July 1924 to Sept. 1925 Asst. Engr., Dept. of Interior of Porto Rico, Bureau of Municipal Works, on design of water and sewerage-works. *TT 1.3: P 1.3: D 1.3.* Oct. 1925 to June 1926 Instructor, and Sept. 1926 to June 1927 and Aug. 1927-June 1928 Asst. Prof., in Civ. Eng., Univ. of Porto Rico, in charge of reinforced concrete structural and bridge design, theory of structures, etc. Summer 1927 Asst. Engr., Bureau of Design, Dept. of Interior, San Juan, Porto Rico, assisting on design of 100-m. span reinforced concrete bridge. Summer 1926 Graduate student, Massachusetts Inst. of Technology. *TT 2.7: P 2.7: RC 1.6: D 0.1. TT 8: P 8: RC 1.6: D 1.4.* Refers to A. S. Lucchetti-Otero, C. M. Spofford, C. H. Sutherland, R. G. Tyler, C. del Valle Zeno.

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(1) MOUSSON, MARCUS, 512 Fourteenth Ave., Paterson, N. J. (Age 24. Born Herisau, Switzerland.) 1926 Dipl. Ing. Civ., Eidgenoessisch Tech. Hochschule. *TT 4: P 4.* Aug. 1927 to Jan. 1928 Designing Engr. with H. E. Gruner, Cons. Engr., on design and construction of hydraulic power plants. *TT 0.2: P 0.2: D 0.2. TT 4.2: P 4.2: D 0.2.* Refers to O. H. Ammann, A. L. Sonderegger.

873

(8) MULFORD, EDGAR THEODORE, 1541 Chicago Rd., Chicago Heights, Ill. (Age 36. Born Mason City, Ill.) Sept. 1913 to May 1917 student, Coll. of Eng., Univ. of Illinois. *TT 2: P 2.* Summers 1915 and 1916 and Saturdays in 1917 with Illinois Central R. R. Co. and Univ. of Illinois, making tests and experiments of car wheels, oils, etc. May 1917 to May 1919 with 23d Engrs., U. S. Army, in charge of road construction (6 months) and road surveys (3 months), Bordeaux, France, and on road maintenance, Argonne Woods (3 months). *TT 1: P 1: RC 1: D 1.* June to Aug. 1919 Asst. Engr., City of Chicago Heights, Ill., on sewer and pavement construction. *TT 0.2: P 0.2: RC 0.2: D 0.2.* Aug. 1919 to date member of firm, McCoy & Mulford, Engrs., chiefly for municipalities; at present Engr. for Towns of Homewood, Flossmoor, Hazel Crest, Olympia Fields, Matteson, Richton Park, Glenwood, Mokena, Manteno, Peotone and Normandy, Ill. *TT 9: P 9: RC 9: D 9. TT 12.2: P 12.2: RC 10.2: D 10.2.* Refers to N. E. Anderson, B. D. Barker, G. O. Consoer, H. P. Ramey, L. K. Sherman.

874

(1) MULHOLLAND, JACK, Irrigation and Water Supply Comm., Brisbane, Queensland, Australia. (Age 24. Born Gympie, Australia.) 1926 B. E., Univ. of Queensland. *TT 4: P 4.* Nov. 1925 to April 1926 Asst. Engr., Cross River Comm., Brisbane, Queensland, on computations for additional cross-river facilities for Brisbane. *TT 0.4: P 0.4.* April 1926 to date Jun. Asst. Water Supply Engr., Irrigation and Water Supply Comm., Brisbane, executive control in field and office of water-supply works and surveys. *TT 2.1: P 2.1: RC 0.6. TT 6.5: P 6.5: RC 0.6.* Refers to W. H. R. Nimmo, R. A. Sutherland.

875

(10) NEELY, JOHN LEE, Jr., Franklin, Tenn. (Age 28. Born Franklin, Tenn.) 1922 B. E., Vanderbilt Univ. *TT 4: P 4.* 1922 to date with Dept. of Highways and Public Works, until Jan. 1923 as Inspector on construction and Instrumentman on location, then

(2 years) on design of roadway and pavements in Plans Dept., plotting of alignment and profile, laying grades, computing and balancing quantities, and since Jan. 1925 Office Engr. and Asst. to Div. Engr. who is in charge of all location, construction and maintenance of Third Div., Tennessee State Highway Dept.; work largely administrative; supervises details. *TT 5.9: P 5.9: RC 5.3. TT 9.9: P 9.9: RC 5.3.* Refers to E. D. Akers, J. C. Akers, H. T. Ammerman, R. H. Baker, C. N. Bass, C. W. Butts, R. S. Lillard, D. D. McGuire, J. E. Moreland, C. H. Olmstead.

876

(7) **NORDGREN, PAUL AMANDUS**, North Branch Y. M. C. A., Highland Park, Mich. (Age 21. Born Daggett, Mich.) 1928 B. S. in C. E., Univ. of Mich. *TT 4: P 4.* Refers to L. M. Gram, R. H. Sherlock.

877

(8) **NORTON, ROBERT ARTHUR**, 402 West Oregon St., Urbana, Ill. (Age 25. Born Rowley, Iowa.) 1924 B. S. in Agri. Eng., Iowa State Coll. 1928 B. S. in C. E., Univ. of Ill. *TT 4: P 4.* July 1924 to date with Div. of Agricultural Eng., Bureau of Public Roads, U. S. Dept. of Agriculture, Washington, D. C., until Jan. 1928 as Jun. Drainage Engr., and since then Asst. Drainage Engr., on investigations of runoffs and ground-water fluctuation in agricultural lands, flow of water in dredged drainage channels, etc., in Central Illinois. *TT 4: P 4: RC 0.5. TT 8: P 8: RC 0.5.* Refers to Q. C. Ayres, J. J. Doland, W. C. Huntington, S. H. McCrory, C. E. Ramser, T. C. Shedd, C. C. Wiley.

878

(1) **NUBAR, YVES**, 190 Wadsworth Ave., New York City. (Aged 28. Born Constantinople, Turkey.) 1922 C. E., Ecole Nationale des Ponts et Chaussées, Paris, France. *TT 4: P 4.* Summer 1920 Steel and enforced Concrete Designer, French Govt. R. Rs., Paris, France, steel trestles and concrete bridge design. Summer 1921 Reinforced Concrete Designer, Limousin & Co., Paris, concrete factory design. Jan. 1923 to Jan. 1924 Steel Detailer with Levering & Garrigues, New York City, on steel office buildings and apartment houses. *TT 1: P 1.* Jan. to Sept. 1924 Steel Detailer and Designer with Lange & Noska, New York City, on steel office buildings and apartment houses. *TT 0.8: P 0.8.* Sept. 1924 to May 1925 Steel Detailer and Checker, Cutler Iron Works, New York City, on steel structures, and (after Feb. 1925) with Taylor Fichter Steel Constr. Co., New York City, on theatres and office buildings. *TT 0.9: P 0.9: RC 0.7.* May 1925 to date Steel and Reinforced Concrete Designer, Elec. Bond & Share Co., New York City, on switchyard structures and transmission towers, and (after July 1925) with H. G. Balcom, Cons. Engr., New York City, on steel, concrete and timber structures. *TT 3.3: P 3.3: RC 2.7: D 3.3. TT 10: P 10: RC 3.4: D 3.3.* Refers to H. G. Balcom, A. L. Kehoe, J. Loewenstein, R. Modjeski, G. A. Noska.

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(10) **O'BRIEN, WILLIAM EDMUND**, Waterville, N. C. (Age 30. Born Troy, N. Y.) 1921 C. E., Rens. Pol. Inst. *TT 4: P 4.* July to Dec. 1917 Draftsman, Consolidated Telegraph & Elec. Subway Co., New York City, mapping location of subways. *TT 0.2: SP 0.2.* Dec. 1917 to May 1918 Instrumentman and Warehouse Clerk, Phoenix Constr. Co., New York City, grades and office detail, also supervision of warehouse stock on construction of dock for U. S. Army, at Bordeaux, France. *TT 0.2: SP 0.2.* June to Sept. 1918 and April to Aug. 1919 with U. S. Govt. at Watervliet (N. Y.) Arsenal, as Ordnance Inspector, technical work in connection with inspection of manufacture of heavy ordnance, and (1919) Field Engr. in charge of layout of buildings, highways and railroad sidings. *TT 0.6: SP 0.2: P 0.4.* June 1921 to Feb. 1922 Jun. Asst. Engr., New York State Highway Dept., acting as Instrumentman and Party Chf. on surveys. *TT 0.5: P 0.5.* Feb. to Nov. 1922 Instrumentman and Office Mgr., The Foundation Co., New York City, on field layout, Windsor Steam Electric Station, West Penn Power Co. and Office Mgr. on construction of small bank, Coraopolis, Pa. *TT 0.8: P 0.8.* Jan. to July 1923 Jun. Asst. Engr., Grade 2, New York State Dept. of Architecture, acting as Field Engr. and Inspector of construction of new hospital buildings, Creedmoor, N. Y. *TT 0.5: P 0.5.* Aug. 1923 to date with Phoenix Utility Co. (Elec. Bond & Share Co.), as Res. Engr. on construction of addition to Hauto Steam-Electric Station, Penn Power & Light Co. and of power-house, Wallenpaupack hydro-electric development, in charge of engineering work, interpretation of plans, etc.; Res. Engr. and Constr. Supt. on construction of Ft. Lauderdale (Fla.) S. E. Station, interpretation of plans, design of plant and equipment, etc.; Locating Engr., Catalooche arch dam, Waterville hydro-electric development, in charge of location and engineering work in connection with construction of Constant Angle Arch Dam. *TT 5: P 5: RC 5. TT 11.8: SP 0.6: P 11.8: RC 5.* Refers to R. J. Bassett, E. R. Cary, F. D. Corliss, D. F. Dow, P. L. Hornby, W. W. Rousseau.

880

(3) OGILVIE, NOEL JOHN, 96 Carling Ave., Ottawa, Ont., Canada. (Age 47. Born Hull, Que., Canada.) 1904 to date with Dept. of the Interior, Canada, on International Boundary Survey, until 1906 in charge (under H. B. M. Commr.) of survey party in British Columbia, and 1907 to 1908 same Commr.'s Representative on inspection of survey, 49th parallel, from Pacific Ocean to summit of Rocky Mts.; 1909 to 1914 in charge of survey of International Boundary from Mount St. Elias to Dixon entrance; 1914 Asst. Director, and 1917 to date Director, Geodetic Survey of Canada, Dept. of the Interior, Ottawa, Canada; 1915 to 1917 in responsible charge of Geodetic Survey of British Columbia coast; 1923 to 1925 Secy., and 1923 to date Pres. (Sec. of Geodesy), National Committee of Canada of International Geodetic and Geophysical Union; autumn 1924 Canadian Representative at Second General Conference of this Union held at Madrid, Spain, and since 1925 Pres., National Committee of Canada, same Union, and autumn 1927 Delegate for the Committee with power of voting on administrative matters to Third General Assembly of the Union held at Prague, Czechoslovakia. TT 24.5: P 24.5: RC 13.5. Refers to W. Bowie, S. J. Chapleau, C. R. F. Coutlee, C. V. Hodgson, E. L. Jones, R. S. Lea, J. B. McRae.

881

(11) OLIVER, GRAYDON, 1104 Hi Point St., Los Angeles, Cal. (Age 33. Born Portland, Ore.) 1917 B. S., Univ. of Cal. TT 4: P 4. May 1917 to June 1919 Private and later 2d Lieut., Science and Research Div., U. S. Army, Washington, D. C., on development of aeronautical instruments and equipment for airplanes. TT 1.9: SP 0.2: P 1.7: RC 0.8: D 0.1. June 1919 to Oct. 1920 Engr. and Surveyor, Natomas Co., on topographic, subdivision and general instrument work. TT 1.2: P 1.2: RC 1.2. Oct. 1920 to May 1923 Engr. and Foreman, Pacific Gasoline Co., first in charge of Gas Dept., pipe-line construction and maintenance and gas measurements at Taft, Cal., then of natural gasoline plants, construction, maintenance, etc., at Brea, and later of construction of refinery, compression plant, etc. at Santa Fe Springs. TT 2.7: P 2.7: RC 2.7. May 1923 to Jan. 1926 Asst. Chf. Engr., Refiners Constr. Co., on construction and design of natural gasoline plants, pipe lines, etc., throughout United States, investigations of oil and gas properties, valuations, reports, etc. TT 2.7: P 2.7: RC 2.7. Jan. to Oct. 1926 general consulting, natural gasoline industry, special investigations, compression and absorption plant design and construction. TT 0.8: P 0.8: RC 0.8. Oct. 1926 to date Editor, *Hydraulic Engineering* and Technical Editor, *Petroleum World*, Los Angeles, Cal.; also consulting work in connection with oil industry. TT 1.8: P 1.8: RC 1. TT 15.1: SP 0.2: P 14.9: RC 9.2: D 0.1. Refers to R. L. Anderson, R. B. Moran, F. A. Noetzel, E. Oliver, N. Silsbee, A. K. Warren.

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(1) OWEN, SAMUEL PATTERSON, 48 Manchester Pl., Newark, N. J. (Age 21. Born Newark, N. J.) 1928 C. E., Rens. Pol. Inst. Summers 1923 and 1924 Rodman and Chainman with Harrison R. Van Dwyne, Surveyor, Newark, N. J. Summer 1925 Student Engr., Delaware & Hudson R. R.; acted as Rodman, Instrumentman, etc., with surveying party. Summer 1926 Student Engr., City of Newark, acting as Transitman. TT 4: P 4. Refers to E. R. Cary, L. W. Clark, T. R. Lawson, P. C. Ricketts, W. W. Rousseau.

883

(15) PACE, NAT, P. O. Box 132, Baytown, Tex. (Age 35. Born Calvert, Tex.) 1915 C. E., Univ. of Tex. TT 4: P 4. June 1914 to Sept. 1915 with L. A. Gueringer, Victoria, Tex., as Instrumentman on highway and levee construction, 4 months in charge of office. TT 1.3: P 1.3: RC 0.3. Oct. 1915 to July 1916 Supt. of Constr., Field Constr. Co., Victoria, Tex., on highway construction in DeWitt County. TT 0.8: P 0.8: RC 0.8. Aug. 1916 to May 1918 with O. W. Finley, Engr., Ennis, Tex., as Res. Engr. on levee construction in Ellis County, in charge of location, design and construction of levees in Red River and Franklin Counties. TT 1.8: P 1.8: RC 1.1: D 1.1. June to Nov. 1918 with U. S. Army. Dec. 1918 to May 1919 in private practice, preliminary surveys, design, estimates and location for Levee Dist., Navarro County, Tex. TT 0.5: P 0.5: RC 0.5: D 0.5. June to Sept. 1919 with Williams Bros., Contrs., Houston, Tex., as Supt. of Constr., laying pipe line, in charge of one division. TT 0.2: P 0.2: RC 0.2. Oct. to Nov. 1919 inspecting concrete construction and valuation for Gulf Coast Lines. TT 0.2: P 0.2: Dec. 1919 to date Draftsman, Designer, Chf. Draftsman and Maintenance Engr., Humble Oil & Refining Co., Baytown (Tex.) Refinery. TT 8.6: P 8.6: RC 3.2: D 7. TT 17.4: P 17.4: RC 6.1: D 8.6. Refers to E. C. H. Bantel, L. A. Gueringer, C. S. Kirkpatrick, R. D. Parker, T. U. Taylor, W. P. Willis.

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(3) PAINTER, ROBERT JAMES, 57 Second St., Troy, N. Y. (Age 24. Born Ballston Spa, N. Y.) 1928 C. E., Rens. Pol. Inst. Summers 1918-1920 Rodman, Chainman and Note-keeper, Summer 1921 Levelman and Transitman, and March to Sept. 1924 Transitman, with Hoadley & Giles, Binghamton, N. Y. Summers 1922-1923 Transitman, Inspector on sewer

construction, Village of Endicott, N. Y. Summers 1925-1927 Transitman and Gen. Asst. to Village Engr., Endicott. *TT 4: P 4.* Refers to E. R. Cary, L. W. Clark, J. A. Giles, R. B. Hoadley, Jr., T. R. Lawson, W. W. Rousseau.

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(2) **PARKER, CHARLES FULTON, Jr.**, Mallison St., South Windham, Me. (Age 23. Born North Windham, Me.) 1928 B. S., Univ. of Me. *TT 4: P 4.* Refers to H. S. Boardman, E. H. Sprague.

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(13) **PARKER, JOHN STANLEY**, 1135 Fifty-Eighth Ave., Oakland, Cal. (Age 28. Born Grand Rapids, Mich.) 1928 B. S., Univ. of Cal. *TT 4: P 4.* Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, S. T. Harding, C. G. Hyde, G. E. Troxell.

887

(1) **PARKER, PHILIP MORGAN**, 155 East Mosholu Parkway, New York City. (Age 32. Born Ft. Collins, Colo.) 1921 B. Sc. in C. E., Univ. of Nebr. *TT 4: P 4.* Jan. to Oct. 1918 Instructor in Military Trade School of Surveying, Washington Barracks, D. C., and Oct. to Dec. 1918 Candidate, Field Artillery Officers' Training School. *TT 0.4: SP 0.4.* Sept. 1921 to June 1923 Instructor, Nebraska School of Irrigation (branch of Univ. of Nebraska). *TT 1.8: P 1.8.* July 1923 to Feb. 1928 with Moffat Tunnel Comm., until Jan. 1925 as Instrumentman, then Chf. of Party on field engineering, and after Sept. 1927 Asst. Supt., placing concrete tunnel lining. *TT 4: SP 0.8: P 3.2: RC 3.2. TT 10.2: SP 1.2: P 9: RC 3.2.* Refers to C. A. Betts, J. V. Davies, F. C. Hitchcock, T. J. Leahy, J. T. McGrew, C. E. Mickey.

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(10) **PARKIN, GEORGE THOMAS**, Care, State Highway Dept., East Point, Ga. (Age 22. Born Beaufort, N. C.) 1928 B. S. C. E., Univ. of N. C. 1926 to 1927 (co-operative work while student) Rodman, North Carolina State Highway Comm. (6 months) and Surveyor with H. R. Totten, Chapel Hill, N. C., on real-estate development (over 2 months). *TT 4: P 4.* Refers to G. M. Braune, T. F. Hickerson, H. F. Janda.

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(1) **PARSONS, NORMAN CHAPEL**, 62 North Carll Ave., Babylon, N. Y. (Age 24. Born Hartford, Conn.) 1928 B. S., Mass. Inst. Tech. *TT 4: P 4.* Refers to J. B. Babcock, 3d, C. M. Spofford.

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(8) **PEARSON, ERIC GUNNARD**, 10605 Ave. E, Chicago, Ill. (Age 22. Born Helsingborg, Sweden.) 1928 B. Sc. in C. E., Univ. of Ill. *TT 4: P 4.* Refers to J. S. Crandall, J. J. Doland, G. W. Pickels, T. C. Shedd, J. Vawter, C. C. Wiley.

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(6) **PENNOYER, RAYMOND PALMER**, 431 Carnegie Bldg., Pittsburgh, Pa. (Age 37. Born East Orange, N. J.) 1913 M. E., Stevens Inst. Tech. *TT 4: P 4.* July 1913 to date (except May 1917 to April 1919 2d and 1st Lieut., 15th Engrs., A. E. F., being 1st Lieut., Tank Corps, on railroad construction and operation, reconnaissance and repair and Staff Officer in Tank Corps; at present Major, Infantry Officers Reserve) with Carnegie Steel Co., as follows: July 1913 to April 1914 Mechanical and Structural Draftsman on mill maintenance design, Munhall, Pa.; April 1914 to April 1916 Special Student, Homestead Steel Works, studying construction, operation and metallurgy of steel mills; April 1916 to May 1917 Special Operating Engr., structural rolling mills, designing and installing labor-saving and mill-operating devices; April 1919 to Sept. 1926 Field Foreman of Constr., Homestead Works, in direct charge of general mill construction (average \$2 000 000 annually); Sept. 1926 to Oct. 1927 Salesman and estimating fabricated and plain steel work; Oct. 1927 to April 1928 Engr. Salesman, redesign and estimate of steel work in large buildings and selling, Pittsburgh, Pa.; since April 1928 Structural Engr., Pittsburgh, in charge of engineering of Sales Dept. *TT 13.3: SP 1: P 12.3: RC 8.8. TT 17.3: SP 1: P 16.3 RC 8.8.* Refers to H. A. Brainerd, H. F. Doeleman, J. H. Edwards, E. Jadwin, F. T. Llewellyn, E. Mowlds, W. H. Weiskopf.

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(2) **PETERSON, KENNETH MORTON**, 893 South St., Roslindale, Mass. (Age 22. Born Boston, Mass.) 1928 B. S., Mass. Inst. Tech. *TT 4: P 4.* Refers to H. K. Barrows, C. B. Breed, C. M. Spofford.

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(1) **PETROFESI, MICHAEL FRANCIS**, 36 Oak St., New York City. (Age 24. Born New York City.) 1928 B. S. in C. E., Manhattan Coll. *TT 4: P 4.* Refers to J. J. Costa,

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(10) **PFAEHLER, RICHARD**, Charlotte, N. C. (Age 46. Born Stuttgart, Germany.) 1905 Diplom Engr., Tech. Coll. of Stuttgart, Germany. *TT 4: P 4.* Nov. 1906 to Feb. 1908 Draftsman, Sprague Elec. Co., Bloomfield, N. J. *TT 1.1: P 1.1.* Feb. 1908 to Sept. 1910 and Jan. 1917 to June 1918 with Southern Power Co., Charlotte, N. C., on detail design and (after Jan. 1917) in charge of design of hydro-electric power plants. *TT 4.1: P 4.1: RC 2.6: D 1.5.* Oct. 1910 to Oct. 1913 with Southern Electro Chemical Co., Charlotte, on design of chemical plant for fixation of atmospheric nitrogen, including supervision. *TT 3.1: P 3.1: D 3.1.* Nov. 1913 to Dec. 1916 with Quebec Development Co., Ltd., New York City, in charge of preliminary engineering and design for hydro-electric developments on Saguenay River, Que., Canada. *TT 3.2: P 3.2: D 3.2.* July 1918 to date with Southern Power Co. and Allied Interests and with W. S. Lee, Cons. Engr., Charlotte, on design and consulting engineering for hydro-electric power developments. *TT 10: P 10: RC 10: D 10. TT 25.5: P 25.5: RC 12.6: D 17.8.* Refers to F. H. Cothran, A. S. Crane, T. H. Hogg, W. S. Lee, J. W. Rickey.

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(13) **PHELAN, SEYMOUR HUSTED**, 965 Kingston Ave., Piedmont, Cal. (Age 48. Born Fruitvale, Cal.) 1900 and 1904 student, Univ. of California. *TT 1: P 1.* May 1901 to Feb. 1902 Stakeman and Chainman, North Western Pacific R. R. *TT 0.4: SP 0.4.* March to Dec. 1902 Timekeeper, E. B. & A. L. Stone Co., on railroad construction in Nevada. *TT 0.4: SP 0.4.* March 1903 to Jan. 1904 Rodman and Chainman, Southern Pacific R. R. *TT 0.4: SP 0.4.* Oct. 1904 to March 1906 Levelman on preliminary survey of electric railroad, Marin County, Cal. *TT 0.8: SP 0.8.* March 1906 to June 1912 with Southern Pacific Co., until March 1910 as Asst. Engr. and Gen. Foreman on maintenance of way, Oakland (1 year) and Bakersfield (3 years), Cal., and after March 1910 Roadmaster, Los Angeles Div. *TT 5.4: P 5.4: RC 1.4.* June 1912 to Nov. 1914 Engr. M. of W., California Western R. R., Willits to Ft. Bragg, Cal. *TT 1.4: P 1.4: RC 1.4.* Nov. 1914 to March 1919 in private practice of surveying, civil and landscape engineering, at Santa Barbara, Cal. *TT 4.4: P 4.4: RC 4.4: D 4.4.* March 1919 to Sept. 1927 Engr. M. of W., San Francisco-Sacramento R. R. Co., Oakland, Cal. *TT 8.5: P 8.5: RC 8.5: D 8.5. TT 22.7: SP 2: P 20.7: RC 15.7: D 12.9.* Refers to J. E. Bowersmith, A. P. Denton, A. J. Grier, H. A. Kluegel, C. M. Mardel, O. H. O'Neill, G. W. Rear, G. S. Young.

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(4) **PIKE, MERRITT LEMUEL**, Thorofare, N. J. (Age 21. Born Westville, N. J.) 1928 B. S. in C. E., Drexel Inst., Philadelphia, Pa. *TT 4: P 4.* Sept. 1926 to Jan. 1927 Rodman, road surveying, concrete inspection, and March to June 1927 Jun. Engr., acting as Transitman, New Jersey State Highway Dept. *TT 0.3: SP 0.3. TT 4.3: SP 0.3: P 4.* Refers to H. L. Bowman, S. J. Leonard.

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(8) **PLATT, BOYNE HUTCHINSON**, 6708 Oxford Ave., Chicago, Ill. (Age 27. Born Hawarden, Iowa.) 1923 B. S. in Civ. Eng., Iowa State Coll. *TT 4: P 4.* 1917-1918 and 1921 (intermittently) Rodman and Instrumentman, Northern Irrigation Co., Hagerman, N. Mex. Summer 1922 Draftsman, Iowa State Coll. Eng. Experiment Station. June to Sept. 1923 and Jan. to March 1924 Squad Boss, same Station and U. S. Bureau of Public Roads, on computation, field and research work, etc. *TT 0.3: SP 0.1: P 0.2.* March 1924 to date with Consoer, Older & Quinlan, Cons. Engrs., Chicago, Ill., successively as Asst. Engr., Res. Engr., Designing Engr., Constr. Engr. and Asst. Office Engr. on design and supervision of construction of water-works, sewerage systems, city pavements, street lighting, etc.; at present Asst. Office Engr. in charge of preparation of special assessment ordinances, specifications and plans for municipal improvements in approx. twenty-five towns. *TT 4: SP 0.1: P 3.9: RC 3: D 1. TT 8.3: SP 0.3: P 8: RC 3: D 1.* Refers to T. R. Agg, C. A. Case, A. W. Consoer, G. O. Consoer, A. H. Fuller, C. Older, U. F. Turplin.

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(9) **PLUMMER, HARRY CUSTER**, 7016 Euclid Ave., Cleveland, Ohio. (Age 30. Born West Union, Ohio.) 1918 A. B., Ohio Univ. 1922 B. S. C. E., Case School of Applied Sci. *TT 4: P 4.* June 1918 to Jan. 1919 with U. S. Army, marine aviation. Jan. 1919 to Sept. 1920 with B. F. Goodrich Co., Office Mgr. Dept. Sept. 1920 to June 1925 Instructor, Case School of Applied Science. *TT 2: P 2.* June 1925 to Jan. 1928 Treas. and Gen. Mgr., and Jan. 1928 to date Pres. and Treas., Sterling Eng. Co., Mun. and Structural Engrs. *TT 3.2: P 3.2: RC 3.2: D 0.6. TT 9.2: P 9.2: RC 3.2: D 0.6.* Refers to W. L. Havens, R. F. MacDowell, C. A. Miller, F. H. Neff, F. A. Pease, F. L. Plummer, W. E. Rice.

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(8) **PLUMMER, RAYMOND BENTON**, 11853 Minders Ave., Detroit, Mich. (Age 25. Born Gilead, Ill.) 1928 B. S. in C. E., Univ. of Ill. Summer 1927 Jun. Highway Engr., Illinois State Highway Dept., office and survey work, inspection of culvert and bridge construction, etc. *TT 4: P 4*. Refers to H. E. Babbitt, J. J. Doland, W. C. Huntington, C. C. Wiley.

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(15) **POOLE, WILLIAM CLAYTON**, 67 First St., Troy, N. Y. (Age 23. Born Washington, D. C.) 1928 C. E., Rens. Pol. Inst. *TT 4: P 4*. Refers to E. R. Cary, L. W. Clark, T. R. Lawson, P. C. Ricketts, W. W. Rousseau.

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(2) **PORTER, HAROLD FULTON**, 856 Watertown St., West Newton, Mass. (Age 23. Born Cambridge, Mass.) 1928 S. B., Mass. Inst. Tech. *TT 4: P 4*. Refers to C. B. Breed, C. M. Spofford.

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(10) **PREST, KENNETH WALLACE**, 1005 Grand Central Ave., Tampa, Fla. (Age 21. Born Tampa, Fla.) 1928 B. S. C. E., Univ. of Fla. *TT 4: P 4*. Refers to C. C. Brown, W. W. Flneren, P. L. Reed.

903

(1) **PRETTYMAN, EDWARD**, 143 East Thirty-Ninth St., New York City. (Age 35. Born Seaford, Del.) 1919 C. E., Cornell Univ. *TT 4: P 4*. Feb. to July 1916 Chainman, Baltimore & Ohio Ry., being Asst. on survey party. *TT 0.2: SP 0.2*. Aug. 1916 to Aug. 1917 Draftsman, Pennsylvania Ry., assisting a maintenance of way Supervisor. *TT 1: P 1*. Sept. 1917 to May 1919 2d Lieut. and later 1st Lieut., Engr. Corps, U. S. Army, with pioneer engineers, 1 year in France, commanded units, including a company. *TT 1.7: P 1.7: RC 1.5*. Feb. 1920 to Aug. 1921 Asst. Engr., Delaware State Highway Dept., acting as Transitman, Inspector, Draftsman and (last 6 months) Chf. of survey party. *TT 1.5: P 1.5: RC 0.5*. Aug. 1921 to July 1923 Res. Engr., North Carolina State Highway Comm., in responsible charge of construction. *TT 1.9: P 1.9: RC 1.9*. Feb. 1924 to March 1925 Chf. Inspector on construction (2 months), and Chf. of survey party, Pennsylvania State Highway Dept. *TT 1: P 1: RC 1*. April to May 1925 Asst. to City Engr. of Lancaster, Pa., on maintenance. *TT 0.2: P 0.2*. May 1925 to Nov. 1927 Res. Engr., Phoenix Utility Co., in responsible charge of location, plans, inspection of construction, etc., of transmission lines in Florida. *TT 2.5: P 2.5: RC 2.5*. Nov. 1927 to date Asst. Engr., Elec. Bond & Share Co., Transmission Line Sec., New York City. *TT 0.7: P 0.7: D 0.7*. *TT 14.8: SP 0.2: P 14.6: RC 7.4: D 0.7*. Refers to F. A. Barnes, F. S. Greene, G. W. Hutchinson, C. O. Sherrill, C. M. Upham, C. E. Winblad.

904

(1) **PRITCHARD, HAROLD OLANDO**, 25-60 Forty-Second St., Astoria, N. Y. (Age 25. Born New York City.) Student in Civ. Eng., Brooklyn Polytechnic Inst. (evenings). Jan. 1923 to April 1925 Laboratory Asst., Stuyvesant High School, New York City, being Asst. to Instructor teaching technical determination, testing coal, brass, water, etc. *TT 1: SP 1*. April to Oct. 1925 Jun. Engr., Bridge and Tunnel Comm., New York City, field and office work. *TT 0.5: P 0.5*. Oct. 1925 to date with Board of Transportation, New York City, until March 1926 as Topographical Draftsman, field work, in charge of party, also drawing subsurface plans, and since March 1926 Jun. Engr., being Squad Boss, designing subsurface structures and modifying subway details, etc. *TT 2.5: P 2.5: D 2*. *TT 4: SP 1: P 3: D 2*. Refers to A. N. Aeryns, S. T. Goldsmith, J. H. Myers, C. D. Searle, F. A. Snyder, E. J. Squire.

905

(12) **RAINE, WILLIAM THORWALD**, Bellevue, Wash. (Age 24. Born Riverhead, N. Y.) 1928 B. S. in C. E., Univ. of Wash. Summer 1927 Draftsman on location, Washington State Highway Dept. *TT 4: P 4*. Refers to I. L. Collier, J. B. Hamilton, C. C. May, C. C. More.

906

(11) **RAPP, HENRY CLINTON**, 532 South Gertruda Ave., Redondo Beach, Cal. (Age 26. Born Troy, Ohio.) Feb. to Sept. 1920, Oct. 1921 to June 1922 and Oct. 1923 to Feb. 1924 student, Civ. Eng. course, California Inst. of Technology. *TT 1: P 1*. Sept. 1920 to April 1921 Chainman and Levelman, and April to Sept. 1921 Stream Gauger, Southern California Edison Co., Big Creek, Cal. *TT 0.5: SP 0.5*. June 1922 to Oct. 1923 with Palos Verdes Estates, Cal., until July 1922 as Rodman, then Recorder and after Sept. 1922 Party Chf. on triangulation, levels and road location and construction. *TT 1.1: SP 0.1: P 1: RC 0.2*. April to July 1924 Chf. of Party and Computer with Chas. Foulke, San Bernardino, Cal., on mountain subdivision and road location. *TT 0.3: P 0.3*. July-Nov. 1924 Chf. of Party and

Computer, Olmsted Bros., Palos Verdes Estates, on triangulation and road location. *TT 0.3: P 0.3.* April to May 1925 Draftsman, Southern California Telephone Co. *TT 0.1: SP 0.1.* June 1925 to Sept. 1926 on Palos Verdes Project, Palos Verdes Estates, 1 1/10 years as Field Engr. on location and construction of Palos Verdes Coast Highway, then Chf. of Party on subdivision. *TT 1.3: P 1.3: RC 1.1.* Sept. 1926 to March 1927 Field and Office Engr., Arrowhead Villas Subdivision, Lake Arrowhead, Cal., on subdivision and road location, and estimates. *TT 0.5: P 0.5: RC 0.2.* March to Oct. 1927 Office Engr. and Field Engr., Mt. Whitney Union Mining Co., Owenyo, Cal., surveying. *TT 0.6: P 0.6: RC 0.6.* Oct. to Dec. 1927 Field and Office Engr., Mammoth Cons. Mines, Mammoth Lakes, Cal., on preliminary survey, estimate and report for proposed 200-h. p. hydro-electric development. *TT 0.1: P 0.1: RC 0.1.* Jan. 1928 to date Office Engr. with Rose & Evans, Engrs., Burbank, Cal., Hollywood Riviera subdivision, Redondo Beach, Cal., on subdivision computing, responsible for street grades and intersection design, surface drainage and quantities. *TT 0.4: SP 0.1: P 0.3: RC 0.3: D 0.3.* *TT 6.1: SP 0.7: P 5.4: RC 2.5: D 0.3.* Refers to M. D. Glessner, L. Hussey, W. D. Larrabee, W. W. Michael, F. Thomas, R. B. Worthy.

907

(14) REEDER, WILLIAM SYMNS, Troy, Kans. Graduating student awarded Kansas State Section prize. (Age 22. Born Troy, Kans.) 1928 B. S. in Civ. Eng., Kans. State Agri. Coll. Summers 1923-1925 Chairman, and summer 1926 Rodman, Atchison, Topeka & Santa Fe Ry. *TT 4: P 4.* Refers to L. E. Conrad, F. F. Frazier, M. W. Furr, L. V. White.

908

(1) RETZKE, PAUL OTTO, 47 Randolph Ave., Dover, N. J. (Age 24. Born New York City.) 1927 C. E., Coll. of Applied Sci., Syracuse Univ. *TT 4: P 4.* Summer 1923 Rodman, and Summer 1924 Transitman, Bergen County Eng. Dept., Hackensack, N. J. Summer 1925 Transitman with Thos. F. Bowe, New York City, on surveys for sanitary sewer. Summer 1926 Inspector, Borough of Hasbrouck Heights, N. J.; on sidewalk, curb and gutter, and street drainage construction. July 1927 to date Structural Draftsman, Picaftny Arsenal, Dover, N. J., drafting and supervised design of steel, hollow-tile and reinforced concrete mill buildings, equipment layouts for conveying and loading explosives. *TT 0.8: SP 0.2: P 0.6. TT 4.8: SP 0.2: P 4.6.* Refers to J. O. Davis, L. Mitchell, S. D. Sarason, J. A. Wahler.

909

(8) REYNOLDS, THOMAS GEORGE, Lombard, Ill. (Age 22. Born Kalamazoo, Mich.) 1928 B. S. in C. E., Univ. of Ill. *TT 4: P 4.* Refers to C. M. Briggs, J. J. Doland, W. C. Huntington, G. W. Pickels, T. C. Shedd, C. C. Wiley.

910

(13) RIBAL, RAYMOND ROBERT, 3015 Grove St., Oakland, Cal. (Age 27. Born Los Angeles, Cal.) 1928 B. S., Univ. of Cal. *TT 4: P 4.* Dec. 1918 to Dec. 1921 Chairman, Rodman, Draftsman and (occasionally) Transitman, Denver & Rio Grande R. R. *TT 1.5: SP 1.5.* Aug. 1927 to April 1928 Draftsman, and April 1928 to date Office Engr., Sanitation and Drainage Comm., Oakland, on sewer design. *TT 0.5: SP 0.3: P 0.2: RC 0.2: D 0.2. TT 6: SP 1.8: P 4.2: RC 0.2: D 0.2.* Refers to R. E. Davis, H. F. Gray, C. G. Hyde, C. H. Lee, G. E. Troxell.

911

(9) RIBER, EARL WILLIAM, 263 Grove Ave., Dayton, Ohio. (Age 26. Born Dayton, Ohio.) 1924 B. C. E., Purdue Univ. *TT 4: P 4.* June 1924 to March 1925 Transitman, Charles B. Hawley & Co., Hydr. Engrs., Washington, D. C. *TT 0.5: SP 0.5.* April to Sept. 1925 Designer, Wabash Portland Cement Co., Osborn, Ohio, during building of plant. *TT 0.5: P 0.5: D 0.5.* Sept. 1925 to date (except Jan. to Aug. 1927 Asst. City Engr., Dayton, Ohio) with Harrington, Howard & Ash, Cons. Engrs., Kansas City, Mo., as Res. Engr. on five bridges in Dayton. *TT 3: P 3: RC 3. TT 8: SP 0.5: P 7.5: RC 3: D 0.5.* Refers to G. F. Baker, Jr., C. S. Bennett, C. H. Eiffert, J. F. Hale, E. E. Howard, W. W. Morehouse, C. H. Paul.

912

(9) RINEARSON, HORACE WAYLAND, 214 South Main St., Middletown, Ohio. (Age 41. Born Buffalo, N. Y.) 1909 C. E., Rens. Pol. Inst. *TT 4: P 4.* 1910 to 1913 Sales Engr., 1913 to 1916 Technical Representative and Mgr., Buenos Aires (S. A.) Branch, and 1916 to 1923 Mgr., Culvert & Flume Dept., American Rolling Mill Co. *TT 8.6: SP 1.5: P 7.1: RC 7.1:* 1923 to date Vice-Pres. and Gen. Mgr., Armco Culvert Mfrs. Association, Middletown, Ohio. *TT 5: P 5: RC 5. TT 17.6: SP 1.5: P 16.1: RC 12.1.* Refers to M. J. Adams, T. R. Agg, G. M. Braune, W. R. Neel, M. C. Noble, C. H. Paul, V. M. Peirce, L. M. Sandston, P. D. Sargent.

913

(3) **RINGWOOD, THOMAS EDWARD**, Montauk, N. Y. (Age 33. Born Cedar River, Mich.) Licensed Prof. Engr. and Land Surveyor, N. Y. State. Student, Minnesota School of Mines (2 years) and Wisconsin School of Mines (Sept. 1919 to March 1920). June 1917 to March 1919 Ensign and Lieut. (j. g.) U. S. Naval Reserve, acting as Gunnery, Navigating and Commanding Officer, U. S. S. *Barney*. March to Sept. 1920 Estimator, under Sales Engr., Allis-Chalmers Mfg. Co., Milwaukee, Wis. *TT 0.5: P 0.5*. Sept. 1920 to April 1921 Transitman and Chf. of Party, Milwaukee Elec. Ry. & Light Co., field work on construction of Lakeside Power Plant, some estimating. *TT 0.5: P 0.5*. April 1921 to May 1923 Staff Engr. with Ralph E. Davis, Cons. Engr., Pittsburgh, Pa., on maps, appraisals, investigations and reports on Standard Oil Co. properties and independent companies. *TT 2.1: P 2.1: RC 1.5*. May 1923 to Nov. 1924 Engr.-in-Chg. of development work, Carl G. Fisher Properties, Miami Beach, Fla., contracts, specifications, inspection and approval of estimates. *TT 1.5: P 1.5: RC 1.5*. Nov. 1924 to Oct. 1925 Vice-Pres. and Engr., Waterside Realty Corporation, Port Washington, N. Y., in charge of Bayview Colony development, design, specifications, contracts and payments. *TT 0.9: P 0.9: RC 0.9: D 0.9*. Oct. 1925 to date with Montauk Beach Development Corporation, until May 1927 as Engr.-in-Chg. and Asst. Secy., in charge of engineering on 10 000-acre project, triangulation, control and topography, record plans on 1 400 acres, since May 1927 Chf. Engr. Nov. 1927 to date also Vice-Pres. and Chf. Engr., J. W. Hennessy, Inc., responsible (with other directors) for dredging contract (2 200 000 cu. yd.) *TT 2.8: P 2.8: RC 2.8: D 2.8*. *TT 8.3: P 8.3: RC 6.7: D 3.7*. Refers to R. T. Betts, F. J. Biele, B. A. Bowman, W. N. Brown, L. V. Morris, J. W. Ripley, A. A. Robbins.

914

(11) **ROBERTS, CLAUDE OLIVER**, 1083 Fouteenth St., Boulder, Colo. (Age 23. Born Durango, Colo.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4*. Refers to R. L. Downing, F. R. Dungan, C. L. Eckel.

915

(6) **ROBERTS, GLEN WALLACE**, Elizabeth, W. Va. (Age 21. Born Elizabeth, W. Va.) 1928 B. S. C. E., W. Va. Univ. *TT 4: P 4*. Refers to L. V. Carpenter, R. P. Davis, H. E. Snyder.

916

(7) **ROBERTSON, GORDON JAMES**, 12831 Lincoln Ave., Highland Park, Mich. (Age 26. Born Detroit, Mich.) A. B., and 1928 B. S. E. in Civ. Eng., Univ. of Mich. *TT 4: P 4*. June to Dec. 1923 and Dec. 1924 to Dec. 1925 Draftsman with Verner Wilhelm & Mobly, Archts. and Engrs., and (after Dec. 1924) Detroit City Gas Co., Detroit, Mich. *TT 0.8: SP 0.8*. Jan. 1925 to Feb. 1927 Structural Detaller, until June 1926 with Detroit Edison Co., then with Giffels & Vallet, Structural Engrs., Detroit. *TT 0.6: SP 0.6*. *TT 5.4: SP 1.4: P 4*. Refers to L. M. Gram, R. H. Sherlock.

917

(12) **ROBINSON, JOHN WALTER**, E. 517 Eighth Ave., Spokane, Wash. (Age 32. Born Montesano, Wash.) 1920 B. S. in C. E., Wash. State Coll. *TT 4: P 4*. June to Oct. 1917 Asst. Hydrographer, U. S. Reclamation Service, on determining seepage loss in canals, Huntley Irrigation Dist., Mont. *TT 0.1: SP 0.1*. Oct. 1917–Sept. 1919 Corporal, Headquarters Detachment, 316 Engrs., 91st Div., being Regimental Topographer, 8 months on survey of Camp Lewis Military Reservation, 5 months in charge of planetable party; overseas service, St. Mihiel, Argonne and Epyr-Lys Offensives. *TT 0.9: SP 0.9*. June to July 1920 Draftsman, Spokane County Engr.'s Office. Sept. 1920 to Feb. 1923 Draftsman, Surveyor and (over 9 months) Salesman, F. J. Warner, Spokane, Wash. *TT 1.3: SP 1.3*. Feb. 1923 to date Engr., Spokane Water Div.; completed 65 116 ft. of steel pipe line (18-in. to 48-in.), 68 500 000-gal. electric pumping station (1926), 15 500 000-gal. concrete-lined reservoir (1927) and two 4 000 000-gal. booster pump stations (1928). *TT 5.5: P 5.5: RC 1: D 4.1*. *TT 11.8: SP 2.3: P 9.5: RC 1: D 4.1*. Refers to H. S. Baker, H. C. Bender, A. I. Buchecker, A. D. Butler, B. J. Garnett, W. L. Morgan, C. Myers.

918

(1) **ROFMAN, JOSEPH**, 863 Whitlock Ave., New York City. (Age 25. Born in Russia.) 1928 B. S. in Civ. Eng., Cooper Union. Sept. 1921 to 1923 with Michelson Realty Corporation, assisting superintendent on construction, timekeeping, some line and grade work. Aug. 1925 to Oct. 1927 Jun. Engr. and later Asst. Engr., New York State and New Jersey Interstate Bridge and Tunnel Comm. (Holland Tunnel), New York City, with line and grade party; Inspector of construction; final estimates, etc. Oct. 1927 to date Jun. Civ. Engr., Board of Transportation, New York City, estimates and field work. *TT 4: P 4*. Refers to F. E. Foss, G. Morrison, M. H. Van Buren.

919

(1) **ROGGER, TEODOR**, 271 Hicks St., Brooklyn, N. Y. (Age 27. Born Uppsala, Sweden.) 1921 C. E., Orebro Tech. Coll. Jan. 1923 to Jan. 1924 Draftsman, with Arlenti y Maisterra, Buenos Aires, Argentine Republic, detailing reinforced concrete. *TT 0.5; SP 0.5.* Feb. 1924 to Feb. 1926 Designer of reinforced concrete, Empresa Argentina de Cemento Armado, Buenos Aires. *TT 2: P 2: D 2.* April to Dec. 1926 Draftsman on maps, New York Edison Co., New York City. *TT 0.4; SP 0.4.* Dec. 1926 to Aug. 1927 Designer, railroad bridges, etc., with Gibbs & Hill, Cons. Engrs., New York City. *TT 0.7: P 0.7: D 0.7.* Sept 1927 to date Designing Draftsman, Atmospheric Nitrogen Corporation, Syracuse, N. Y., on structural design and drafting. *TT 0.9: P 0.9: D 0.9.* *TT 4.9: SP 0.5: P 4.4: D 3.6.* Refers to O. A. Arnold, W. R. McCann, T. C. Morris, W. Rowland, G. Storlie.

920

(4) **ROGERS, ALVA LEWIS**, 105 North Wayne Ave., Wayne, Pa. (Age 34. Born Devon, Pa.) Feb. 1914 to March 1923 (except Nov. 1918 to May 1919) with Milton R. Yerkes, C. E., Bryn Mawr, Pa., on surveys, highway and municipal engineering, real estate and landscape developments, sewers, etc., 3 years as Asst., then as Associate, 2½ years (during illness of employer) in charge of business. *TT 7.5: SP 1: P 6.5: RC 6.5: D 5.* Nov. 1918 to May 1919 in charge of corps on layout and supervision of construction, engine facility job and interchange freight yard, including 2 bridges on piles, roundhouse, turntable, shops, pits and coal wharf, for Pennsylvania R. R. Co. *TT 0.5: P 0.5: RC 0.5: D 0.1.* March 1923 to date in private practice at Ardmore, Pa., and (later) Wayne, Pa., reports, sewers, water supply, real-estate development, highway and municipal engineering, coal and material handling yards, surveys, etc. *TT 5.2: P 5.2: RC 5.2: D 5.2.* *TT 13.2: SP 1: P 12.2: RC 12.2: D 10.3.* Refers to R. F. Buck, W. H. Crawford, H. S. Farquhar, N. Foster, C. F. Mebus, M. R. Pugh, D. C. Stackpole.

921

(13) **ROLISON, ERNEST ARTHUR**, 744 Mills Bldg., San Francisco, Cal. (Age 43. Born in Sutter County, Cal.) Took extension courses, Univ. of California and International Correspondence Schools. 1910 to 1916 in private practice of engineering (contracting) hydro-electric, irrigation and land surveys. *TT 6: P 6.* 1916 to 1926 City Mgr., Redding, Cal. *TT 10: P 10: RC 10.* 1926 to 1927 City Mgr., Santa Barbara, Cal., supervising all engineering. *TT 1: P 1: D 1.* 1927 to date in private practice at San Francisco, Cal. *TT 1: P 1: D 1.* *TT 18: P 18: RC 10: D 2.* Refers to A. Givan, J. B. Holly, C. F. Mau, C. S. Pope, F. B. Smith, A. J. Wagner.

922

(1) **ROSE, EMERY**, 223 East Fourteenth St., New York City. (Age 30. Born Hatvan, Hungary.) 1918 C. E., Tech. Coll. of Budapest. *TT 4: P 4.* 1918 to 1920 Bridge Draftsman with Gane Danubius, Budapest, Hungary. *TT 1.5: SP 0.5: P 1.* 1920 to 1925 Structural Steel Draftsman, First Ungarien Machine Factory, Budapest. *TT 5: P 5.* Jan. 1925 to Sept. 1926 Chandelier Draftsman, Segar St. Co., New York City. *TT 1.7: P 1.7.* Sept. 1926 to June 1928 Structural Steel Draftsman, until May 1928 with Bronze Iron Co., Inc., Long Island City, then with Fassler Co., New York City. *TT 1.8: P 1.8.* *TT 14: SP 0.5: P 13.5.* Refers to C. L. Allen, J. W. Bennett, J. Berger, C. Mayer, C. H. Stein.

923

(1) **ROSENBERG, DAVID HOWARD**, 863 East Forty-Seventh St., Brooklyn, N. Y. (Age 22. Born Newark, N. J.) 1928 B. S. in C. E., Copper Union Night School. *TT 4: P 4.* Jan. 1925 to May 1928 on structural detailing until Oct. 1925 with McClinton Marshall Constr. Co., then with Harris Structural Steel Co., Inc., New York City. May 1928 to date with American Cyanamid Co., New York City, designing. *TT 0.1: SP 0.1: D 0.1.* *TT 4.1: SP 0.1: P 4: D 0.1.* Refers to F. E. Foss, R. H. Vanderbrook, J. P. J. Williams.

924

(8) **ROSS, ALBERT HENRY**, 552 West William St., Decatur, Ill. (Age 41. Born Quincy, Ill.) 1913 B. S. in C. E., Washington Univ. *TT 4: P 4.* June 1913 to April 1918 Structural Steel Draftsman, Structural Steel Checker and Designing Engr., Stupp Bros. Bridge & Iron Co., St. Louis, Mo. *TT 3.3: SP 1.5: P 1.8.* Sept. 1920 to date Structural Steel Draftsman, Structural Steel Checker, Asst. Engr. and Designing Engr., Mississippi Valley Structural Steel Co., Decatur, Ill. *TT 7: SP 0.8: P 6.2: RC 3.7: D 3.7.* *TT 14.3: SP 2.3: P 12: RC 3.7: D 3.7.* Refers to L. N. Fisher, F. D. Holbrook, J. G. Stupp, E. O. Sweetser, W. D. P. Warren, F. L. Washburn.

925

(12) **RUTLEDGE, CHARLIE EDWIN**, 9842 Sixtieth Ave. South, Seattle, Wash. (Age 22. Born Fernie, B. C., Canada.) 1928 B. S. in C. E., Univ. of Wash. June to Aug. 1926 Rodman, Pacific States Lumber Co. Aug. to Oct. 1926 Chainman with Van Orsdel, Forest

Engrs., some transit work and mapping. Summer 1927 Chainman, Washington State Highway Dept., also office work. *TT 4: P 4.* Refers to I. L. Collier, J. B. Hamilton, C. W. Harris, C. C. May, C. C. More.

926

(4) **RUTTER, EDWARD JACKSON**, 223 Trent Rd., Penn Wynne (West Park P. O.), Pa. (Age 27. Born Philadelphia, Pa.) 1923 A. B. in Civ. Eng., and 1926 C. E., Swarthmore Coll. *TT 4: P 4.* June 1923 to April 1927 Asst. Engr. with Weston E. Fuller, Cons. Engr., Swarthmore, Pa., on reports and valuation of water supplies and water powers, flood-flow studies, design of sewer and storm-water drainage systems; Res. Engr. on construction of 10 miles of concrete curbs and gutters. *TT 3.5: SP 0.5: P 3: RC 1.5.* May 1927 to date Jun. Engr., Hydroelectric Div., U. G. I. Contr. Co., Philadelphia, Pa., on steam-flow studies, computations for reports on and design of hydroelectric projects. *TT 1: P 1: D 0.5. TT 8.5: SP 0.5: P 8: RC 1.5: D 0.5.* Refers to E. W. Doebler, W. E. Fuller, P. L. Heslop, J. D. Justin, L. A. Whitsit.

927

(11) **SACRA, CHARLES**, 1649 Bellaire St., Denver, Colo. (Age 34. Born Ardmore, Okla.) 1915 C. E., Valparaiso (Ind.) Univ. March 1913 to March 1914 and Dec. 1915 to Feb. 1922 (except May 1917 to April 1919 1st Lieut., 5th Engrs., 7th Div., U. S. Army, in United States and France) with Illinois Steel Co., Gary, Ind., 1 year as Rodman, then Field Engr. in charge of field work on construction of roadway (3½ miles long), bridge over Calumet River, subways under New York Central, Baltimore & Ohio and four tracks of Elgin, Joliet & Eastern R. Rs., and subdivisions, sewers, grading and paving for improvement of Company's holdings in Gary. *TT 6.5: SP 0.5: P 6: RC 6: D 0.5.* June to Dec. 1915 Inspector, Chicago, Rock Island & Pacific R. R., on track elevation in Chicago. *TT 0.3: SP 0.3.* March to May 1922 Asst. Engr., Lockwood Greene & Co., on foundation work for a 9-story building in Milwaukee, Wis. *TT 0.2: P 0.2.* July to Nov. 1922 Rodman, Chicago, Burlington & Quincy R. R. *TT 0.2: SP 0.2.* Dec. 1922 to April 1923 Transitman, and Jan. to June 1926 Field Engr. on construction of Iowa Ave. Subway, Denver, with H. S. Crocker, Cons. Engr. *TT 0.8: P 0.8: RC 0.5.* May 1923 to July 1924 Field Engr. with Batty & Klipp, Inc., Engrs. and Contrs., on construction of new shops for Denver & Rio Grande Western R. R., Denver. *TT 1.2: P 1.2: RC 1.2: D 0.2.* Aug. 1924 to Aug. 1925 Engr. and Foreman, Dutton & Kendall Co., Contrs., on construction of Marston Lake filtration plant, Denver. *TT 1: P 1.* Aug. 1925 to Jan. 1926 Draftsman, Shankland Ristine & Co., Engrs., on design of Republic Bldg., Denver. *TT 0.5: P 0.5: D 0.5.* July 1926 to Oct. 1927 with E. Burkhardt & Sons Steel & Iron Works Co., as Draftsman, and Field Engr. on construction of shop and office buildings and warehouse crane. *TT 1.4: P 1.4.* Oct. 1927 to date Draftsman, Colorado Bldrs. Supply Co., on reinforced concrete. *TT 0.7: P 0.7. TT 12.8: SP 1: P 11.8: RC 7.7: D 1.2.* Refers J. W. Cerny, H. S. Crocker, F. D. Hartford, J. C. Park, E. H. Schneider, R. G. Shankland, W. R. Weber.

928

(11) **SAGEHORN, ERNEST HENRY**, P. O. Box R, Beverly Hills, Cal. (Age 25. Born Willits, Cal.) 1928 B. S. in Civ. Eng., Univ. of Cal. *TT 4: P 4.* June 1922 to Aug. 1923 Chainman, Rodman, Levelman and Draftsman, Merced Irrigation Dist. *TT 0.6: SP 0.6.* May to Aug. 1924 Mech. Draftsman, with Stone & Webster, Inc. on detail shop drawings. *TT 0.1: SP 0.1.* Aug. 1924 to Jan. 1925 Draftsman, East Bay Water Co., tracing, etc., acting as Rodman, Chainman, Levelman and Transitman on reservoir construction and water-pipe grade and alignment. *TT 0.2: SP 0.2.* Jan. 1928 to date Asst. Engr., Univ. of California, on field surveys and location of streets, buildings, utilities, etc., plans, cost estimates and supervision of construction of irrigation reservoir and streets. *TT 0.5: P 0.5. TT 5.4: SP 0.9: P 4.5.* Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, S. T. Harding, C. G. Hyde, B. Jameyson, A. van Rensselaer.

929

(1) **SANTILLI, FRANK**, 981 Teller Ave., New York City. (Age 26. Born New York City.) 1928 B. S. in C. E., Cooper Union (Night School). March to June 1923 Instrumentman, Gibson Corporation, Valley Stream, N. Y., on subdivision and development. June to Sept. 1923 Rodman, Erie R. R. Sept. 1923 to March 1924 Instrumentman and Field Engr., American Concrete Steel Co., Newark, N. J., on reinforced concrete industrial building and residences. March to July 1924 Instrumentman with Cohen & Ehrhart, City Surveyors and Cons. Engrs., New York City. July 1924 to Oct. 1925 Transitman and Computer with Giraud & Welsch, City Surveyors and Cons. Engrs., New York City. Oct. 1925 to July 1927 Rodman, Dept. of Public Markets, New York City, on preliminary surveys and computations for proposed Manhattan Market, supervision of construction, Bronx Terminal Market. July 1927 to May 1928 Topographical Draftsman, Board of Transportation, 53d St. Tunnel, New York City. *TT 4: P 4.* Refers to H. R. Codwise, J. O. Eckersley, F. E. Foss, W. H. Yates.

930

(2) **SANTOS, TIRSO NOLLORA, Jr.**, 282 Massachusetts Ave., Cambridge, Mass. (Age 26. Born San Isidro, Philippine Islands.) 1927 B. S. in C. E., Univ. of Philippines. 1927 to 1928 post-graduate student, Massachusetts Inst. of Technology. March to July 1927 Inspector of building reconstruction, Manila, Philippine Islands. *TT 4: P 4.* Refers to J. B. Babcock, 3d, C. M. Spofford.

931

(11) **SASSO, MAURICE**, 221 West Sixty-Fourth St., Los Angeles, Cal. (Age 38. Born Terlizzi, Italy.) 1912 B. S. in Civ. Eng., Petagora Tech. Inst., Italy. 1919 H. S. in Applied Mathematics and Physics, Univ. of Southern Cal. *TT 4: P 4.* Sept. 1916 to Jan. 1919 Asst. to C. W. Cook, Los Angeles, Cal.; Instructor (while student) of surveying and mathematics, Univ. of Southern California. March to July 1920 private design of H. L. Arnold Bldg. (12 stories, reinforced concrete). *TT 0.5: P 0.5: RC 0.5: D 0.5.* Sept. 1920 to March 1921 Chf. Designing Engr., Globe Grain & Milling Co., Los Angeles, Cal. *TT 0.6: P 0.6: RC 0.6: D 0.6.* March 1921 to Dec. 1923 Designing Engr., Union Oil Co. of California, Los Angeles, *TT 2.7: P 2.7: D 2.7.* Jan. 1924 to May 1927 Structural Engr., Los Angeles (private practice). *TT 3.4: P 3.4: RC 3.4: D 3.4.* Feb. 1919 to Feb. 1920 and May 1927 to date Designing Engr., Los Angeles County Flood Control Dist. Since Sept. 1919 also Prof., Polytechnic Evening School, Los Angeles, teaching theory of design of reinforced concrete and graphical statics. *TT 2.3: P 2.3: RC 2.3: D 2.3. TT 13.4: P 13.4: RC 7.8: D 9.4.* Refers to E. C. Eaton, S. M. Fisher, F. C. McMillan, F. A. Noetzli, R. J. Reed.

932

(7) **SAVIGNY, HARRY ARTHUR**, Trout Creek, Mich. (Age 22. Born South Dayton, N. Y.) 1928 B. S. in C. E., Univ. of Mich. June 1928 to date Inspector on highway bridge, Michigan State Highway Dept. *TT 4: P 4.* Refers to L. M. Gram, R. L. Morrison, R. H. Sherlock.

933

(3) **SAWYER, RALPH ALBERT**, 570 Western Ave., Albany, N. Y. (Age 25. Born Northfield, Vt.) 1925 B. S. in Civ. Eng., Norwich Univ. *TT 4: P 4.* 1925 to date Chairman, M. of W. Dept., New York Central R. R., on surveys, computations, some design of bridges, buildings, foundations, track layouts, etc. *TT 2.2: SP 0.7: P 1.5: RC 0.3. TT 6.2: SP 0.7: P 5.5: RC 0.3.* Refers to L. W. Greene, G. D. Lewis, A. E. Winslow.

934

(8) **SAWYER, WILLIAM LINCOLN**, R. R. No. 3, Decatur, Ill. (Age 23. Born Decatur, Ill.) 1928 B. S., Univ. of Ill. Sept. 1925 to June 1926 (while student) with surveying party on county road work, Macon County. Summer 1927 Helper in shop, and June 1928 to date on detail work in office, Mississippi Valley Structural Steel Co., Decatur, Ill. *TT 4: P 4.* Refers to W. C. Huntington, T. C. Shedd.

935

(9) **SCHEID, LEE EDWARD**, 453 Irving Ave., Dayton, Ohio. (Age 21. Born Dayton, Ohio.) 1928 B. Sc. in Civ. Eng., Univ. of Dayton. Summer 1926 Rodman, C. D. Putnam Eng. Co., Dayton, Ohio. June 1928 to date Civ. Engr., National Cash Register Co., on surveying, plans and specifications for new sanitary sewerage system. *TT 4: P 4.* Refers to C. V. Clow, B. T. Schad.

936

(11) **SCHELBE, THOMAS GILBERT**, Antioch Coll., Yellow Springs, Ohio. Graduating student awarded Dayton Section prize. (Age 21. Born Detroit, Mich.) 1928 B. S., Antioch Coll. Oct. 1923 to date (co-operative work) with Michigan Bell Telephone Co., Detroit, successively as Station Installer, installing subsets, long lines, switchboards, etc., Acting Pilot Foreman, supervising installation crews, Student Engr. and Station Inspector, devising new methods and routines, etc. *TT 4: P 4.* Refers to A. E. Morgan, P. C. Nash.

937

(5) **SCHMIEDICKE, FERDINAND CONRAD**, 701 South Fourth St., Baltimore, Md. (Age 24. Born Baltimore, Md.) 1928 B. E., The Johns Hopkins Univ. *TT 4: P 4.* July 1921 to March 1923 Eng. Aid., Baltimore Topographical Survey Comm., acting as Rodman and Recorder. *TT 0.8: SP 0.8.* March 1923 to May 1924 Eng. Aid, Baltimore Sewers Div., acting as Transitman on surveys. *TT 0.6: SP 0.6.* May 1924 to Sept. 1925 Asst. Topographical Engr. with Baltimore City Surveyor, office computations on street openings. *TT 0.8: SP 0.5: P 0.3. TT 6.2: SP 1.9: P 4.3.* Refers to J. H. Gregory, J. T. Thompson.

938

(9) **SCHNEIDER, FLOYD EDWARD GEORGE PAUL**, 420 Marshall St., Gary, Ind. (Age 22. Born Denver, Iowa.) 1928 B. Sc. in Civ. Eng., State Univ. of Iowa. *TT 4: P 4.* Refers to D. D. Curtis, A. H. Holt, R. B. Kittredge, B. J. Lambert, E. L. Waterman, C. C. Williams.

939

(14) SCHOLER, EBEN ELLSWORTH, 202 Kresge Bldg., Topeka, Kans. (Age 28. Born Milo, Kans.) 1924 B. S. in C.E., Kans. State Agri. Coll. TT 4: P 4. Summer 1919 Chainman, Atchison, Topeka & Santa Fe R. R. Summer 1922 Plant Chemist, M. R. Ammerman Paving Co., in charge of mix at asphalt plant. June to Sept. 1924 Project Engr., Kansas Highway Comm., in charge of design and mix of asphalt road. TT 0.2: P 0.2: RC 0.2. Sept. 1924 to Sept. 1926 Div. Material Engr., Missouri Highway Comm., in charge of estimates, inspection, design, and distribution of materials for Div. No. 1 and part of Div. No. 2. TT 2: P 2: RC 1.5: D 0.5. Sept. 1926 to March 1928 Managing Engr., Missouri Valley Sand & Gravel Association, Kansas City, Mo., on plant and mix design, concrete research and promotion. TT 1.5: P 1.5: RC 1.5: D 1. March 1928 to date Sales Engr., Knight-Kuehne Sand & Gravel Co., Topeka, Kans., plant and mix design and control, executive work and sales. TT 0.3: P 0.3: RC 0.3: D 0.1. TT 8.1: P 8.1: RC 3.6: D 1.6. Refers to L. E. Conrad, F. F. Frazier, M. W. Furr, C. H. Scholer, S. Walker, M. W. Watson, L. V. White.

940

(4) SCHREINER, NORMAN GEORGE, 2516 North Seventeenth St., Philadelphia, Pa. (Age 22. Born Philadelphia, Pa.) 1928 C. E., Lehigh Univ. TT 4: P 4. Refers to S. A. Becker, R. J. Fogg, M. O. Fuller, H. G. Payrow, E. H. Uhler.

941

(1) SCHROEDER, CHARLES WILLIAM EMIL, 128 East End Ave., New York City. (Age 21. Born New York City.) 1928 B. S. in C. E., Cooper Union. Sept. 1922 to May 1923 with American Smelting & Refining Co., New York City. May 1923 to April 1928 Draftsman and computing, The Superheater Co. April 1928 to date Engr. Asst., Board of Transportation, New York City, field work and computing. TT 4: P 4. Refers to H. R. Codwise, F. E. Foss, J. P. J. Williams.

942

(7) SCHULTZ, WALTER ALBERT, Eldora, Iowa. (Age 25. Born Schleswig, Iowa.) 1926 B. S., Coll. of Applied Sci., State Univ. of Iowa. TT 4: P 4. June 1926-Jan. 1928 Field Engr. with County Engr., Linn County, at Cedar Rapids, Iowa, on highway engineering. TT 1.7: P 1.7: RC 0.9: D 0.2. Feb. 1928 to date Asst. County Engr., Hardin County, at Eldora, Iowa, on drainage and highway engineering. TT 0.4: P 0.4: RC 0.1: D 0.2. TT 6.1: P 6.1: RC 1: D 0.4. Refers to J. S. Dodds, B. P. Fleming, R. B. Kittredge, B. J. Lambert, J. R. Maher, F. A. Nagler, E. L. Waterman, E. Welden.

943

(7) SEEMANN, ERNEST WARREN, 909 Alworth Bldg., Duluth, Minn. (Age 33. Born Sioux City, Iowa.) 1920 B. S. in Civ. Eng., Univ. of Minn. TT 4: P 4. Summer 1917 Recorder and Instrumentman, U. S. Lake Survey, Lake of the Woods, Minn. Summer 1919 Engr. in charge of survey and inspection, North Western Fuel Co., Duluth, Minn., on construction of coal dock. June 1920 to Jan. 1923 Designing Engr., Elgin, Joliet & Eastern Ry., designing, checking existing bridges, mapping, estimating, etc. TT 2.6: P 2.6: D 2. Jan. 1923 to Nov. 1924 Engr., Cowin & Co., Minneapolis and (after May 1924) Steel Service Co., San Francisco, Cal. (Reinforced Bar Co.), designing reinforced concrete and computing quantities; in charge of engineering. TT 1.8: P 1.8: D 1.1. Nov. 1924 to June 1925 Asst. Engr., Twin City Bridge Comm. of St. Paul, on design of Ford Bridge across Mississippi River at Twin Cities, three 300-ft. and two 180-ft. reinforced concrete arch spans, reinforced concrete approaches. TT 0.6: P 0.6: D 0.6. June 1925 to Sept. 1926 Engr. in charge of Eng. Dept., Truscon Steel Co., Minneapolis, designing and in charge of design and drafting of reinforced concrete structures. TT 1.2: P 1.2: D 1. Sept. 1926 to date with Whitney Bros. Co., Contrs. and Engrs., Duluth, Minn., until Nov. 1927 as Asst. to Chf. Engr., designed and had charge of drafting structural plans, City Hall at Duluth, and Res. Engr., representing Company on construction of dock and warehouse foundation at Buffalo, N. Y., and since Nov. 1927 Office Engr., designing, computing, cost accounting, etc., docks, foundations, marine construction, etc. TT 1.9: P 1.9: RC 1: D 0.7. TT 12.1: P 12.1: RC 1: D 5.4. Refers to G. H. Butler, G. M. A. Ilg, L. M. Mitchell, D. O. Nelson, J. R. Stack, G. C. Staekle.

944

(15) SHATTUCK, LUCIEN HUNT, Wichita Falls, Tex. (Age 38. Born Port Jervis, N. Y.) 1914 B. S. in C. E., Univ. of Colo. TT 4: P 4. June 1914 to Aug. 1915 with Wulf Eng. Co., Tarrytown, N. Y., on county and municipal work, design of small structures and surveying. TT 0.9: SP 0.3: P 0.6: D 0.6. Aug. 1915 to June 1916 Instructor, Eng. School, Univ. of Colorado. TT 0.8: P 0.8: RC 0.8. June 1916 to June 1917 with Office of Public Roads, U. S. Govt., on design of mountain roads. TT 1: P 1: D 1. June 1917 to Feb. 1919 with Sanderson & Porter, Tulsa, Okla., Fairmont, W. Va. and Ft. Riley, Kans., on oil pipe line work, etc., U. S. Army work under various commanding officers. TT 0.9: P 0.9. Feb. 1919

to date with Continental Oil Co., Denver, Colo., 2 years as Office Engr. on design and construction of small stills, bridges and equipment for refinery, 6 years Refinery Engr. in responsible charge over design, construction and maintenance of various refineries, including construction of boiler-house, stills, water softeners, treating plants and buildings; 1½ years Asst. Supt. in complete charge of refinery operation, including construction. *TT 9.4: P 9.4: RC 9.4. TT 17: SP 1.2: P 15.8: RC 10.2: D 1.6.* Refers to H. S. Crocker, G. D. Fairtrace, M. S. Ketchum, J. Montgomery, J. C. Park, C. C. Williams.

945

(3) **SHERWOOD, EARL JOSEPH**, Genesee Bldg., Buffalo, N. Y. (Age 30. Born Lansing, Mich.) June to Sept. 1916 Rodman and Instrumentman, and 1917 to 1920 Instrumentman and Chf. of Parties on sewer, paving and bridge work (1 year), and design and detailing on Westerly sewage-treatment Works (6 months), all for City of Cleveland, Ohio. 1918 to 1919 Ensign (Navigation Officer), U. S. Navy. *TT 1.1: SP 0.8: P 0.3.* 1920-1927 with American Constr. Co., Cleveland, 1 year installed foundations at Canton (coffer dams) and Mansfield, Ohio, 3 years Engr. and Supt. on building of Easterly sewage-disposal plant, Cleveland, water-works, Port Huron, Mich., and dams, docks, etc., on Sandusky River, private projects, and 4 years Dist. Engr. and Mgr. Eastern offices, at Buffalo, N. Y.; construction included Kelley Island Lime & Transport Co.'s dock and U. S. Govt. breakwaters, at Buffalo, Sturgeon Point breakwaters, Semet Solvay water supply, caisson foundations, International Milling Co., docks, dredging, quarry work, bridge construction, subaqueous pipe-lines, etc.; designed all types of structures and acted in advisory capacity to several contractors and engineers. *TT 8.4: P 0.1: SP 8.3: RC 5.2: D 2.7. TT 9.1: SP 0.8: P 8.3: RC 5.2: D 2.7.* Refers to C. Ashley, A. A. Burger, W. P. Brown, L. L. Davis, J. H. Feigel, J. T. Mockler, J. H. Small, Jr.

946

(13) **SHIMKIN, BORIS MICHAEL**, 164 Sixth Ave., San Francisco, Cal. (Age 40. Born Omsk, Siberia.) 1914 C. E., Tomsk Tech. Inst. 1928 M. S. in C. E., Univ. of Cal. *TT 4: P 4.* Summers 1912 and 1913 Asst. to Engr., Amur R. R., building division coffer dam works, assembling bridge trusses, erecting wooden bridges, concrete dam, culverts, etc. 1914-1918 Chf., Eng. Div., Omsk R. R., on maintenance of buildings, ways and superintending all extensions and new erections. *TT 5: P 5: RC 5: D 5.* Feb. 1919 to Dec. 1920 Chf., Eng. Dept., of Govt. Works, and (after June 1920) Govt. Harbor, assembling wagons, on maintenance of two dry docks, mill and office buildings, railways, superintending erection of mill building, special design for central heating system, etc. *TT 1.7: P 1.7: RC 1.7: D 1.7.* June 1921 to June 1923 Cons. and Designing Engr., Goudriaan's Industrial Co., on reconnaissance survey of new railroad within 350 km., designing bridges, culverts and all buildings, also irrigation works. *TT 2: P 2: RC 2: D 2.* June 1923 to Feb. 1924 Map Draftsman, Southern Pacific R. R. Co. *TT 0.6: P 0.6: RC 0.6: D 0.6.* Feb. 1924 to June 1925 Structural Draftsman, Pacific Gas & Elec. Co., on mill buildings, reinforced concrete. *TT 1.3: P 1.3: RC 1.3: D 1.3.* June to Dec. 1925 Structural Draftsman until Oct. 1925 being Detailer of dredges for Yuba Mfg. Co. then Detailer of steel buildings for Herrick Iron Works, Oakland, Cal., and several structural engineers. *TT 0.5: P 0.5: RC 0.5: D 0.5.* March 1926 to Aug. 1927 Structural Draftsman, Pacific Elec. Mfg. Co., San Francisco, being Designer and Detailer of substations for high-tension switches. Aug. 1927 to date laboratory investigation of arc-welding applied to structural connections. *TT 2.1: P 2.1: RC 2.1: D 2.1. TT 17.3: P 17.3: RC 13.3: D 13.3.* Refers to A. C. Alvarez, R. E. Davis, C. Derleth, Jr., J. R. Guphill, I. M. Neudatchin, G. E. Troxell.

947

(1) **SIMPSON, AUGUSTUS HOFFMAN**, 330 West Fifteenth St., New York City. (Age 23. Born New York City.) 1927 C. E., Rens. Pol. Inst. *TT 4: P 4.* July 1927 to date Jun. Draftsman, Port of New York Authority, Suburban Transit Div. *TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4.* Refers to E. R. Cary, T. R. Lawson, G. S. Reeves.

948

(2) **SINCLAIR, RUSSELL BUCK**, Johnson, Vt. (Age 23. Born Boston, Mass.) 1926 B. S. in C. E., Univ. of Vermont. *TT 4: P 4.* Aug. 1926 to May 1928 Student Training Course, Plant Dept., Western Union Telegraph Co., New York City. At present with Water Dept., City of Springfield, Mass. *TT 0.9: SP 0.9. TT 4.9: SP 0.9: P 4.* Refers to G. F. Eckhard, A. E. Winslow.

949

(1) **SISTI, BRUNO de**, 115 Broad St., New York City. (Age 29. Born Verona, Italy.) 1920 Land Surveyor, Tech. Inst., Perugia, Italy. July 1916 to June 1924 (except June 1917 to Jan. 1921 Officer, Royal Italian Army) with Italian State Rys., as Draftsman and (after Jan. 1921) Tech. Asst. at works on construction and maintenance of building, bridge, tunnel, track, estimate, surveying, etc. *TT 3.5: SP 0.1: P 3.4: RC 3.4: D 1.4.* Nov. 1924 to Dec.

1925 with Jannarone Contr. Co., Belleville, N. J., as Foreman on construction of concrete roads and Engr. on line and grades, estimating and drafting on road construction. *TT 1: P 1.* Jan. 1926 to Oct. 1927 with Russo & Crisci, Inc., New York City, as Estimator on reinforced concrete, brick and stone work, distribution of labor and material costs. *TT 1.8: P 1.8.* Feb. 1928 to date Draftsman with Moranti & Raymond, Inc., Engrs. and Contrs., New York City, on subway construction. *TT 0.2: SP 0.2. TT 6.4: SP 0.3: P 6.1: RC 3.4: D 1.4.* Refers to C. E. Beam, A. Lyle, H. W. Read.

950

(13) **SJOBERG, HAROLD OLIVER**, 5604 East Sixteenth St., Oakland, Cal. (Age 20. Born Oakland, Cal.) 1928 B. S., Coll. of Civ. Eng., Univ. of Cal. *TT 4: P 4.* Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, F. S. Foote, S. T. Harding, C. G. Hyde, G. E. Troxell.

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(1) **SMITH, BERNARD JOSEPH**, 154 Sayre St., Elizabeth, N. J. (Age 27. Born Liverpool, England.) 1923 B. E., Univ. of Liverpool, England. *TT 4: P 4.* April to June 1924 Jun. Field Engr., Underpinning & Foundation Co., New York City, on layout and field records for piers, underpinning and caisson work, New York and Philadelphia. *TT 0.3: P 0.3.* July 1924 to April 1925 Outside Plant Inspector, New York Telephone Co., Long Island Div., field work and making record drawings in connection with underground conduit systems in Brooklyn and Long Island. *TT 0.6: SP 0.1: P 0.5.* April 1925 to July 1926 Underground Conduit Engr., in drafting office on record work, Ohio Bell Telephone Co., sub-surface systems in Toledo, Ohio, field work, inspection and supervision on contracts in North West Ohio. *TT 1: SP 0.3: P 0.7.* July 1926 to date Res. Engr., with Alexander Potter, surveying for supplementary joint trunk sewer, N. J., sewage analysis, design of sewerage systems and disposal plants, supervision of contracts. *TT 2.1: SP 0.1: P 2: RC 1: D 0.2. TT 8: SP 0.5: P 7.5: RC 1: D 0.2.* Refers to A. N. Aeryns, S. G. Hess, A. B. Kozma, J. L. Lenox, A. Potter.

952

(4) **SMITH, HERBERT CAMPBELL**, 306 Riverview Ave., Drexel Hill, Pa. (Age 43. Born Philadelphia, Pa.) 1903 to 1907 Apprentice Ship Draftsman, Neafie & Leoy Ship & Engine Co., on ship, steel layout, erection and detail drafting. *TT 2: SP 2.* 1907 to 1913 with D'Olier Eng. Co., as Draftsman, Designer on centrifugal machines and special machinery, and Chf. Draftsman in direct charge of design, general engineering layouts, taking off material lists and supervising purchasing and inspection of patterns and castings. *TT 5.5: SP 0.5: P 5: RC 2.5: D 1.* 1913 to 1916 Chf. Draftsman, The Sanitation Corporation, responsible for design and layout of foundation and machinery settings for sewage-disposal plant, automatic-pumping stations, design of special gates, screens, etc., for sewage work, purchasing, checking and inspecting patterns, castings and shop assembly. *TT 3: P 3: RC 2: D 1.* 1916 to 1917 Draftsman, Badenhauer Boiler Works, made layout for new factory, standardized miscellaneous parts and general boiler details. *TT 1: P 1.* 1917 to 1920 Draftsman (Squad Leader), American International Ship Bldg. Co., Hog Island, Pa., in charge of general arrangement layouts, organized and headed department for training draftsmen. *TT 3: P 3: RC 1.* 1920 to 1921 Draftsman, Robert Filter Co., on layout and detailing gravity and pressure filters, designing dry-feed machine, alum-pressure dissolvers and orifier-feed nozzles. *TT 1: P 1: D 0.2.* 1921 to date Engr., The Sanitation Corporation, in direct charge of installation of mechanical equipment at Southwest sewage-pumping station (\$49 000), Philadelphia, and sewage screening station (over \$220 000), Astoria, N. Y.; designed and superintended changes and additions to garbage-reduction plant at Bridgeport, Conn., consisting of additional boiler units, boiler house, steam dryers, grease-treating system, chlorination of gases to prevent odors, screens, conveyor, etc. (\$123 000); at present Chf. Engr. of preliminary work, makes calculations as to size of apparatus, flumes, pipes, building, etc., capacity charts, estimates, etc., supervises layouts of sewage-disposal and pumping stations, consulting engineering on closed contracts. *TT 7: P 7: RC 5: D 2. TT 22.5: SP 2.5: P 20: RC 10.5: D 4.2.* Refers to F. S. Childs, E. J. Fort, G. T. Hammond, G. A. Johnson, J. M. Kelly, J. A. McElroy, C. H. Nordell.

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(11) **SMITH, ORVILLE ADNIROUM**, 1814 Lorain Road, San Marino, Cal. (Age 50. Born Perry, Mo.) 1901 to 1904 student in Mech. Eng., Univ. of Missouri. *TT 1.5: P 1.5.* 1905 to April 1909 Draftsman, with Hyle & Patterson, Pittsburgh, Pa., Fairmont (W. Va.) Min. & Machinery Co., Kansas City (Mo.) Structural Steel Co., etc. *TT 1: SP 1.* April 1909 to Aug. 1917 and Aug. 1919 to March 1920 with Southwestern Telephone & Telegraph Co., as Local Mgr. of exchange, Supt. of long-distance and local-line construction, at Vandalla, Mo., and (after Aug. 1919) Asst. Wire Chf., Hannibal, Mo., and Asst. Night Wire Chf. on long-distance lines, Kansas City, Mo. *TT 8.9: P 8.9: RC 8.9.* Aug. 1917 to July

1919 1st Lieut., Signal Corps, U. S. Army, A. E. F., in charge of supplies, installation of telephone exchanges and long-distance lines. *TT 1.9: P 1.9: RC 1.9.* March 1920 to May 1921 office engineering, Empire Gas & Fuel Co., Eldorado, Kans. *TT 1.2: P 1.2.* May 1921 to June 1923 with Black & Veatch, Kansas City, Mo., on resident engineering for pavements, sewers and sewage-disposal plants. *TT 2.1: P 2.1: RC 2.1.* Aug. 1923 to date engineering and design of sanitary sewers, City of Los Angeles, Cal. *TT 5: P 5. TT 21.6: SP 1: P 20.6: RC 12.9.* Refers to B. O. Badgley, W. T. Knowlton, E. J. McCaustland, G. A. Parkes, F. W. Parsons, E. L. Phillips, A. J. Smith, C. A. Smith, N. T. Veatch, Jr.

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(8) SOGA, SUSUMU, Box 157, University Station, Urbana, Ill. (Age 26. Born Doimura Aki-gun Kochiken, Japan.) 1927 B. S. in Civ. Eng., and 1928 M. S., Univ. of Ill. *TT 4: P 4.* Refers to H. Cross, W. C. Huntington, F. E. Richart, T. C. Shedd, C. C. Wiley.

955

(14) SPATHELF, DAVID EDWARD, Jr., 7170 Waterman Ave., St. Louis, Mo. Graduating student awarded St. Louis Section prize. (Age 22. Born St. Louis, Mo.) 1928 B. S. in C. E., Wash. Univ. *TT 4: P 4.* Refers to E. O. Sweetser, J. L. Van Ornum.

956

(13) SPENCER, RALPH WELLINGTON, Box 394, Big Creek, Cal. (Age 29. Born Abbot, Pa.) 1922 B. S. in Civ. Eng., Univ. of Wash. *TT 4: P 4.* May 1923 to June 1924 with U. S. Bureau of Reclamation at Black Canyon Dam, Idaho, as Inspector of concrete and structural steel, on design and drafting of bridges, trestles, concrete placing system, etc. *TT 0.6: SP 0.4: P 0.2: D 0.2.* June 1924 to date with Southern California Edison Co. as follows: June to Dec. 1924 Concrete Inspector on lining 13½-mile tunnel; Dec. 1924 to June 1925 and Dec. 1925 to April 1926 Draftsman on construction plant drafting and design, Florence Lake multiple arch dam, design of minor structures, etc.; June to Dec. 1925 Asst. Chf. of Party on construction of Florence Lake dam; April 1926 to April 1927 Chf. of Party in charge of field work on same dam, and Mono Bear Siphon also drafting and design on construction plant for Shaver Lake Dam (concrete gravity); since April 1927 Field Div. Chf. of Surveys in charge of survey work and drafting room for Big Creek project. *TT 3.4: SP 0.7: P 2.7: RC 2.3: D 0.9. TT 8: SP 1.1: P 6.9: RC 2.3: D 1.1.* Refers to R. C. Booth, W. L. Chadwick, H. A. Kruger, E. C. Panton, D. H. Redinger, W. Ward.

957

(1) SPERLING, ROBERT SIGISMOND, 324 West 100th St., New York City. (Age 23. Born Paris, France.) 1926 B. A., Columbia Coll. *TT 2: P 2.* June 1926 to Jan. 1927 Structural Draftsman and engineering (civil) for S. L. Waller, New York City, building construction and architectural design, drafting, computations. *TT 0.6: SP 0.1: P 0.5: RC 0.1: D 0.2.* Jan. to May 1927 Surveyor (Transitman and Rodman) for Jos. V. Dell, City Surveyor, surveying, drafting, computations. Jan. to May 1927 (evenings) Archt. and Structural Draftsman for Harry Kirshbaum, Archt., on structural design and drafting, stone work and computations. *TT 0.4: SP 0.1: P 0.3: D 0.2.* May 1927 to date Jun. Engr., Board of Transportation, City of New York, directing construction of subway, preparing estimates, drafting and sketching, Chf. of Party for street restoration. *TT 1: P 1: RC 0.1. TT 4: SP 0.2: P 3.8: RC 0.2: D 0.4.* Refers to B. J. Ahearn, J. K. Finch, E. G. Haines, A. Lyle, D. C. Serber.

958

(11) STEALY, KIRK H., 1508 West Pikes Peak Ave., Colorado Springs, Colo. (Age 25. Born Colorado Springs, Colo.) 1921 to 1923 Student, Colorado Coll. Nov. 1923 to July 1925 Rodman, Draftsman and Instrumentman on location and construction, Broadmoor Cheyenne highway, toll gate and Cheyenne Lodge buildings. *TT 1.3: SP 1.3.* July 1925 to July 1926 Asst. Engr. and Instrumentman, Rosemont Water Development for Broadmoor Hotel Co., location and construction of four diversion dams, pipe lines (12 miles), etc. *TT 1: P 1: RC 0.5: D 0.5.* July-Dec. 1926 in charge of surveys and preparation of filing maps for three storage reservoirs for Broadmoor Hotel Water & Power Co., also on subdivision of Broadmoor Heights Subdivision for Broadmoor Hotel Co. *TT 0.5: P 0.5: RC 0.5.* Jan. to Sept. 1927 Instrumentman and Draftsman on subdivision and storage reservoir work, township resurvey, etc. for H. I. Reid, Cons. Engr., Colorado Springs, Colo., and Roscoe Wright, County Surveyor, El Paso County, Colo. *TT 0.7: P 0.7.* Sept. 1927 to date Asst. Chf. Engr., Broadmoor Hotel Co. and Broadmoor Hotel, Water & Power Co., topographic surveys (400 acres) boulevard location and construction, surveys and plans for water-distribution system for Broadmoor Heights Subdivision, including reinforced concrete reservoir, test hole investigation and plans for rock-fill dam (70 ft. high). *TT 0.8: P 0.8: RC 0.8: D 0.8. TT 4.3: SP 1.3: P 3: RC 1.7: D 1.2.* Refers to C. H. Bryson, W. W. Curtis, E. L. Mosley, F. M. Okey, F. O. Ray.

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(2) **STEARNS, PHILIP BEALS**, 71 Pierce St., Greenfield, Mass. (Age 22. Born Greenfield, Mass.) 1928 C. E., Rens. Pol. Inst. *TT 4: P 4.* Refers to E. R. Cary, L. W. Clark, H. B. Compton, T. R. Lawson, W. W. Rousseau.

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(1) **STEINFELD, ALEXANDER**, 409 Orange St., Bellmore, N. Y. (Age 33. Born Nagybanya, Hungary.) 1920 C. E., King Joseph Univ. of Budapest. *TT 4: P 4.* Nov. 1923 to Feb. 1925 Architectural Designer and Supt. with Henry B. Herts, Archt., New York City. *TT 1.2: P 1.2: D 1.2.* Feb.-Aug. 1925 Architectural Designer, Elec. Bond & Share Co., New York City. *TT 0.5: P 0.5: D 0.5.* Sept. 1925 to Jan. 1926 Architectural Designer and Checker with Rouse & Goldstone, Archts., New York City. *TT 0.3: P 0.3: D 0.3.* Jan. to June 1926 Architectural Designer with Charles B. Myers, Archt., New York City. *TT 0.4: P 0.4: RC 0.4: D 0.4.* Jan. 1926-Nov. 1927 Architectural Designer and Checker with Eugene de Rosa, Archt., New York City. *TT 1.5: P 1.5: RC 1.5: D 1.5.* Nov. 1927 to date Archt.'s Supt. on construction with C. Howard Crane, Archt., New York City. *TT 0.7: P 0.7: RC 0.7: D 0.7.* *TT 8.7: P 8.7: RC 2.6: D 4.7.* Refers to H. H. Cashdan, L. Fleischmann, A. B. Kozma, S. Shernow, A. C. Weiser, H. Wolfe.

961

(2) **STERLING, CLARENCE IRVING, Jr.**, 685 Centre St., Newton, Mass. (Age 22. Born Union Hill, N. J.) 1927 B. S. in C. E., Lafayette Coll. *TT 4: P 4.* Oct. 1927 to date Senior San. Eng. Aid, Massachusetts Dept. of Public Health. *TT 0.7: P 0.7.* *TT 4.7: P 4.7.* Refers to F. O. Dufour, W. S. Lohr, L. Perry, E. Wright.

962

(2) **STEWART, ALANSON EUGENE**, 64 Union Pl., Hartford, Conn. (Age 41. Born Lowell, Mass.) 1912 Ph. B., Sheffield Sci. School. *TT 2: P 2.* June 1912 to Sept. 1916 with Connecticut Co., New Haven, Conn., 1 year as Draftsman, then Foreman, and 2 years Roadmaster. *TT 4.3: P 4.3: RC 3.3.* Sept. 1916 to Nov. 1917 Supt., Hartford (Conn.) Sand & Stone Co. *TT 1.2: P 1.2: RC 1.2.* Nov. 1917 to March 1921 Efficiency and Safety Engr., Turner & Seymour Mfg. Co., Torrington, Conn. *TT 3.4: P 3.4.* March to Oct. 1921 Mgr., Hamanassett Beach, State Park & Forestry Comm. *TT 0.7: P 0.7: RC 0.7.* Oct. 1921 to Jan. 1925 Supt., Jitney Dept., Public Utilities Comm., Hartford. *TT 4.3: P 4.3: RC 4.3.* Jan. to Nov. 1925 Secy., Treas. and Mgr., Mid State Stage Co., Motor Coach Operators. *TT 0.8: P 0.8: RC 0.8.* Nov. 1925 to date Asst. Supt. (about 3 months) and Supt., New England Transportation Co., Connecticut Lines. *TT 2.9: P 2.9: RC 2.9.* *TT 19.6: P 19.6: RC 13.2.* Refers to C. J. Bennett, C. M. Blair, C. C. Elwell, L. F. Peck, H. J. Tippet, J. C. Tracy, J. P. Wadhams.

963

(4) **STEWART, WILLIAM PAUL**, Newmanstown, Pa. (Age 23. Born Newmanstown, Pa.) 1928 B. S., Pa. State Coll. *TT 4: P 4.* Refers to E. L. Nuebling, R. O'Donnell, E. D. Walker.

964

(5) **STITZENBERGER, WILBERT**, 2303 Edmondson Ave., Baltimore, Md. (Age 24. Born Philadelphia, Pa.) 1923 graduate, Baltimore Pol. Inst. June 1923 to June 1924 Draftsman with Henry Massart, Cons. Engr., drafting, checking design, steel details, etc. *TT 0.5: SP 0.5.* June 1924 to June 1927 Instrumentman and Chf. of Party, Bureau of Water Supply, Baltimore, Md., on field work for dam layout, road relocation, bridge location, etc. *TT 2.5: SP 0.5: P 2.* June to July 1927 Res. Inspector with C. E. Keefer, Baltimore, being Supervisor over contractor and in complete charge of water-supply installation for a hospital. *TT 0.1: P 0.1.* Aug. 1927 to date Jun. Asst. Engr., Pennsylvania Water & Power Co., during summer in charge of construction, then Chf. of Party on property surveys. *TT 1: P 1.* *TT 4.1: SP 1: P 3.1.* Refers to J. W. Armstrong, C. E. Keefer, F. M. Kipp, Jr., V. B. Siems, J. A. Walls.

965

(1) **STOLLE, FRANZ KARL PAUL**, 2428 Crescent St., Astoria, N. Y. (Age 29. Born Prague, Czechoslovakia.) 1923 Diplom Ingenieur, Technische Hochschule, Dresden, Germany. *TT 4: P 4.* Dec. 1924 to June 1925 Structural Draftsman with Parsons, Klapp, Brinckerhoff & Douglas, Cons. Engrs., New York City, and (after March 1925) Sneed & Co., Iron Works, Jersey City, N. J. *TT 0.3: SP 0.3.* June 1925 to Nov. 1926 Designing Draftsman for structural steel and reinforced concrete, Roanoke (Va.) Iron & Bridge Works. *TT 1: SP 0.4: P 0.6.* Nov. 1926 to Jan. 1927 Structural Draftsman for structural steel buildings and bridges, Virginia Bridge & Iron Co., Roanoke. *TT 0.1: SP 0.1.* Jan. to Dec. 1927 Structural Steel Draftsman, American Bridge Co., Pencoyd, Pa. *TT 0.5: SP 0.5.*

Dec. 1927 to date Structural Designer, with H. G. Balcom, Cons. Engr., New York City. *TT 0.6: P 0.6. TT 6.5: SP 1.3: P 5.2.* Refers to H. G. Balcom, J. L. Edwards, A. C. Weiser.

966

(10) **STRANGE, CHARLES LYNNE**, 141 North Florida St., Mobile, Ala. (Age 43. Born Ransom, Mich.) Jan. 1905 to Dec. 1908 Rodman, Instrumentman and Transitman for J. E. Bank, C. E., Mobile (Ala.) Light & R. R. Co., John R. Peavy, Mobile, and various engineers. *TT 2.5: SP 1.3: P 1.2.* March 1909 to June 1910 Asst. County Engr., Montgomery County, Ala. *TT 1.3: P 1.3: D 0.5.* July to Dec. 1910 with National Rys. of Mexico, on office work, Transitman and short periods of responsible work. *TT 0.5: P 0.5.* Jan. to Feb. 1911 with U. S. Govt. investigating road materials in Mobile and Clarke Counties, Ala. *TT 0.2: P 0.2.* March 1911 to Oct. 1912 County Engr., Elmore County and (after Jan. 1912) Mobile County, Ala., on highway engineering. *TT 1.7: P 1.7: RC 1.7: D 1.7.* Nov. 1912 to Dec. 1913 Asst. Parish Engr., Shreveport, La., on highway engineering. *TT 1.2: P 1.2: RC 1.2.* Jan. 1914 to Dec. 1915 Contr. operating gravel pits and on highway construction. *TT 2: P 2.* Jan. 1916 to Aug. 1917, Feb. 1919 to April 1922 and Nov. 1922 to Oct. 1924 in private practice of engineering, subdivision, street and highway work, etc., Mobile, and with contractors; after Feb. 1919 also retained by Scotch Lumber Co. of Fulton, Ala., for railroad work. *TT 6.9: P 6.9: RC 6.5: D 3.5.* Sept. 1917 to Jan. 1919 County Engr., Monroe County, Ala., on highway work. *TT 1.4: P 1.4: RC 1.4: D 1.4.* May to Oct. 1922 as Contr. constructed oyster shell and gravel roads for Mobile County. *TT 0.5: P 0.5: RC 0.5.* Nov. 1924 to Aug. 1926 Locating Engr., State Highway Dept. of Alabama. *TT 1.8: P 1.8: RC 1.8.* Sept. 1926 to Nov. 1927 Constr. Engr. and Dec. 1927 to date Maintenance Engr., Mobile County. *TT 1.9: P 1.9: RC 1.9: D 1.9. TT 21.9: SP 1.3: P 20.6: RC 15: D 8.3.* Refers to C. D. Batson, J. T. Bullen, J. P. Ewin, W. Finnell, G. L. Moulton, J. R. Peavy, L. C. Smith.

967

(11) **STRONG, MILTON JOSEPH**, Broadmoor Hotel, Colorado Springs, Colo. (Age 35. Born Colorado Springs, Colo.) 1912-1915 with Colorado Springs Light, Heat & Power Co., as Utilityman and (1915) Chf. Operator of Manitou Hydro-Elec. Plant. *TT 2.5: SP 1.5: P 1: RC 1.* 1916-1917 with Mt. Manitou Scenic Incline Ry. Co., on installation of plant and electrical machinery; in charge of electrical work. *TT 2: P 2: RC 2.* 1917 to date Constr. Supt., Broadmoor Hotel Co. and Broadmoor Hotel Water & Power Co., in charge of construction of electrical transmission system (\$25 000), Cheyenne Lodge (\$110 000), Broadmoor Hotel garage addition (\$125 000), green-houses (\$60 000), Polo Grandstand (\$20 000) and stables (\$25 000), Cheyenne Mountain Toll Gate House and Zoo (\$35 000), addition to El Romar (private residence, \$15 000) and of maintenance and operation of water, impounding, storage and delivery system (four diversion dams, storage reservoir, about 40 miles of pipe lines) and electrical distribution system, and of maintenance of Cheyenne Mountain highway (7 miles, \$350 000). *TT 10: P 10: RC 10. TT 14.5: SP 1.5: P 13: RC 13.* Refers to C. H. Bryson, W. W. Curtis, E. L. Mosley, F. M. Okey, F. O. Ray.

968

(9) **STROTHMAN, EDWARD CHARLES**, 3610 Bevis Ave., Cincinnati, Ohio. (Age 23. Born Cincinnati, Ohio.) 1927 C. E., Univ. of Cincinnati. *TT 4: P 4.* April 1923 to June 1927 (co-operative work while student) until June 1923 as Rodman, U. S. Engrs. June 1923 to Sept. 1925 Timekeeper, U. G. & E. Co., Cincinnati, Ohio, on underground conduit installation, and Sept. 1925 to June 1927, drafting and later Chf. of Constr. Party, Rapid Transit Comm., Cincinnati, on boulevard installation. June to Oct. 1927 Chf. of Party on surveying for C. W. Skinner, Engr. Oct 1927 to date Designer with J. R. Biedinger, Structural Engr., Cincinnati. *TT 0.6: SP 0.6: D 0.6. TT 4.6: SP 0.6: P 4: D 0.6.* Refers to J. R. Biedinger, E. D. Gilman, H. B. Luther, F. L. Raschig.

969

(10) **STUART, ALFRED ALLEN, Jr.**, Box 297, Winter Park, Fla. (Age 25. Born Quebec, Canada.) 1927 C. E., Rens. Pol. Inst. *TT 4: P 4.* June to Oct. 1925 Chf. of Party, Florida Associated Engrs., Orlando, Fla., laying out subdivisions, topographical surveying. *TT 0.2: SP 0.2.* Oct. 1925 to Feb. 1926 Eng. Adviser with R. J. Dougherty, Orlando, planning and executing real-estate developments. *TT 0.2: SP 0.2.* Oct. 1926 to Feb. 1927 Draftsman and Computer, Orange County (Fla.) Highway Dept. *TT 0.2: SP 0.2.* Jan. to June 1928 Instructor in Civ. Eng., Rensselaer Polytechnic Inst. *TT 0.2: SP 0.2. TT 4.8: SP 0.8: P 4.* Refers to C. A. Browne, L. W. Clark, H. B. Compton, T. R. Lawson, W. W. Rousseau.

970

(5) **STUART, CRUIKSHANK**, 413 Bretton Pl., Baltimore, Md. (Age 20. Born Baltimore, Md.) 1928 B. E., The Johns Hopkins Univ. *TT 4: P 4.* Refers to T. F. Comber, Jr., J. H. Gregory, G. Slover, J. T. Thompson.

971

(6) **STURM, HAROLD TETRICK**, 10½ East Main St., Buckhannon, W. Va. (Age 31. Born Shinnston, W. Va.) Registered Prof. Engr., State of West Virginia. 1913 to 1914 Rodman, Harrison County Road Dept. *TT 0.5: SP 0.5.* 1915 to 1918 with Horner Bros., Engrs., Clarksburg, W. Va., 6 months as Chainman, 6 months Chf. of Party, and 2 years in charge of branch office at Buckhannon, W. Va., on surveys, projection, development, plant layouts and construction. *TT 2.5: SP 0.5: P 2: RC 2.* 1918 to 1919 Chf. of Party, Sinclair Oil Co., Oklahoma and Louisiana, on surveys, inventory, pumping-station and tank-farm construction. *TT 1: P 1: RC 1.* 1919 to 1920 Chf. Engr. and Asst. to Mgr., Stone-Scott Coal Co., Shinnston, W. Va., development and production of five mines. *TT 1: P 1: RC 1.* 1920 to 1921 Chf. Engr., Philmot Coal Co., and Hesper Coal & Coke Co., Teter and Hesper, W. Va., development and production of three mines. *TT 1: P 1: RC 1.* 1921 to 1922 investigations and report on West Virginia coal mining properties. *TT 1: P 1: RC 1.* 1922 to date member of firm, Upshur Eng. Co., Buckhannon, general civil and mining engineering, past 5 years principally as Consultants for highway contractors, having represented over thirty contractors on seventy-two state and county projects (over 300 miles of surveys); 1924-1926 also City Engr. of Buckhannon, in charge of design and construction of concrete pavement (\$150 000). *TT 6: P 6: RC 6: D 6.* *TT 13: SP 1: P 12: RC 12: D 6.* Refers to W. S. Downs, C. R. Duncan, T. A. Polansky, I. L. Riggs, B. H. Simpson, M. W. Smith, Jr., C. Swecker.

972

(1) **SUHR, CARL JOHN**, 409 Prospect Ave., Mt. Vernon, N. Y. (Age 26. Born Brooklyn, N. Y.) 1925 M. E., Stevens Inst. Tech. *TT 4: P 4.* Sept. 1925 to date with W. W. Young, Westchester County San. Sewer Comm. as follows: Sept. to Nov. 1925 Rodman and Chainman; Nov. 1925 to March 1926 Chainman and Instrumentman; March 1926 to March 1927 Chf. of Field Party on surveys, plotting notes, etc.; March to June 1927 Draftsman, contract plans for Blind Brook Project, simple design problems; June 1927 to April 1928 Asst. Res. Engr., construction of Blind Brook Project (\$300 000), 18-in. cast iron force main (6 000 ft.) 30-in. cast iron force and gravity outfall (6 000 ft.), reinforced concrete sewage-pumping plant and sewage-screening chamber, 20-ft. concrete road (2 000 ft.) with drains, estimates; since April 1928 Asst. Engr. directing work for contract plans for part of Mamaroneck Project. *TT 2.4: SP 0.4: P 2: RC 0.2.* *TT 6.4: SP 0.4: P 6: RC 0.2.* Refers to H. Carlstedt, G. W. Gardner, F. J. Laverty, F. C. Zeigler.

973

(3) **SULLIVAN, JEREMIAH HENRY**, 810 Metropolitan Bldg., Toronto, Ont., Canada. (Age 33. Born Newburyport, Mass.) 1921 B. S., Univ. of Md. *TT 4: P 4.* Summer 1918 Rodman, Chainman and Instrumentman with Lockwood & Greene, at Portsmouth, N. H., on shipyard construction. *TT 0.2: SP 0.2.* Sept. to Dec. 1918 Instructor in Gas School, Chemical Warfare Service, U. S. Govt. *TT 0.3: P 0.3: RC 0.3.* Dec. 1918 to Sept. 1919 with Biddle & Smart, Amesbury, Mass., drafting, making plant layouts, rearranging plant equipment. *TT 0.3: SP 0.3.* April 1921 to Feb. 1923 with H. D. Watts Co., until Feb. 1922 as Timekeeper, Engr. and Supt. on construction of Laurel (Del.) High School, then Engr. in Norfolk on construction of Western and Eastern Junior High Schools, Methodist Church and Law Bldgs., and after Sept. 1922 Engr. on construction of stadium and gymnasium at College Park, Md. *TT 1.8: P 1.8: RC 1.7: D 0.1.* Feb. 1923 to date with George A. Fuller Co., until April 1928 as Supt. of Bldg. Constr., Olympia Theatre, Miami, Canton (Ohio) Daily News Bldg., Passavant Hospital, Chicago, Ill., and (without architectural supervision) Nautilus Hotel, Miami Beach, Daily News Bldg., Miami, and Florida Theatre, Jacksonville; since April 1928 Mgr., Toronto office, George A. Fuller Co. of Canada, Ltd. *TT 5.3: P 5.3: RC 5.3: D 1.1.* *TT 11.8: SP 0.4: P 11.4: RC 7.2: D 1.2.* Refers to H. G. Balcom, M. L. Button, E. S. Humphreys, A. N. Johnson, J. F. McPherson, S. S. Steinberg.

974

(15) **SUPPIGER, EDWARD WASHINGTON**, 290 Elm Road, Ambridge, Pa. (Age 21. Born Highland, Ill.) 1928 B. S. in C. E., Univ. of Ill. Summer 1926 Rodman, American Telephone & Telegraph Co. Summer 1927 Inspector, U. S. Govt., on lock and dam No. 53, Grand Chain, Ill., during construction. *TT 4: P 4.* Refers to H. Cross, W. C. Huntington, G. W. Pickels, T. C. Shedd, A. N. Talbot, J. Vawter, C. C. Wiley.

975

(10) **SUTHERLAND, EDGAR STEWART**, Pickens, S. C. (Age 24. Born Pickens, S. C.) 1927 B. S., Clemson Coll. *TT 4: P 4.* June to Oct. 1927 with South Carolina State Highway Dept., Columbia, S. C., as Instrumentman and on inspection. *TT 0.2: SP 0.2.* Oct. 1927 to March 1928 Levelman, Lehigh Valley R. R. *TT 0.2: SP 0.2.* *TT 4.4: SP 0.4: P 4.* Refers to E. L. Clarke, F. O. Dufour.

976

(11) SWEET, CHARLES LATHAM, 224 Rosewood Pl., Riverside, Cal. (Age 22. Born Bellingham, Wash.) 1928 C. E., Rens. Pol. Inst. TT 4: P 4. Refers to E. R. Cary, L. W. Clark, T. R. Lawson.

977

(12) SWENDSEN, MYRON, Box 156, Boise, Idaho. (Age 36. Born Richmond, Utah.) 1914 B. S. in E. E., Univ. of Utah. TT 4: P 4. June to Aug. 1914 Asst. Engr., Westinghouse Elec. Co., installing substation equipment on Orem Elec. R. R., Salt Lake City to Provo, Utah. TT 0.1: SP 0.1. Aug. 1914 to June 1925 (except June 1918 to May 1919 with 91st Div., 316th Field Signal Battalion, U. S. Army, overseas), in private practice, until Jan. 1917 at Rexburg, Idaho, on surveying, municipal construction, subdivision and city planning, then at Boise, Idaho, in charge of field work in connection with adjudication, Bear River water, construction and inspection, Dry Creek dam in Custer County, engineering and in charge of construction of structures on Little Willow Creek project in Payette County, etc.; after May 1919 on engineering and consulting, including responsible charge of construction of Cedar Creek dam and irrigation system in Twin Falls County, Idaho, and charge of maintenance and operation of second Owsley project (18 000 acres); Chf. Engr., Empire Irrigation Dist. (50 000 acres), surveys, estimates, location and design of structures; Asst. Chf. Engr., Bruneau Irrigation Project (1 000 000 acres), including American Falls Reservoir (since constructed by U. S. Reclamation Service); appraisals, valuation and court work. TT 10.1: SP 1: P 9.1: RC 7: D 2.6. Sept. 1925 to July 1926 with Riddle & Co., Engrs., West Palm Beach, Fla., on subdivision, city planning, drainage, municipal construction and estimates, TT 0.8: P 0.8: RC 0.8: D 0.3. Nov. 1926 to date Asst. Commr. of Reclamation, Idaho, administration work, Dept. of Water Resources. TT 1.4: P 1.4: RC 1.4. TT 16.4: SP 1.1: P 15.3: RC 9.2: D 2.9. Refers to G. C. Baldwin, G. N. Carter, E. B. Darlington, R. B. Ketchum, R. R. Lyman, C. G. Paulsen, A. J. Wiley.

978

(11) SYKES, GLENTON GODFREY, 1622 East Fourth St., Tucson, Ariz. (Age 32. Born Flagstaff, Ariz.) 1923 B. S. in Civ. Eng., Univ. of Ariz. TT 4: P 4. Sept. 1923 to Sept. 1924 Hydrographer, U. S. Geological Survey, measured Colorado River in Grand Canyon, made rating curves and did some investigational work on plumb sounding in deep water. TT 0.5: SP 0.5. Sept. 1924 to Dec. 1926 Office Engr. and Hydrographer, under Supt., Imperial Irrigation Dist., redesigned equipment for measuring canal flow, measured canal daily, had full charge of diversion gate and crews thereon, did all drafting, surveying, etc., also Instrumentman on survey, made in Colorado Delta. TT 2.3: SP 0.1: P 2.2: RC 2: D 0.1. Dec. 1926 to date Draftsman Designer with City Engr., Tucson, Ariz., designed storm sewer (cost about \$98 000) also several culverts, timber bridges, tank tower and at present on design of subway to carry traffic under Southern Pacific R. R. TT 1.6: P 1.6: D 0.5. TT 8.4: SP 0.6: P 7.8: RC 2: D 0.6. Refers to W. E. Dickinson, F. C. Kelton, W. S. King, S. L. Rothery, G. E. P. Smith, M. R. Tillotson.

979

(3) TARBELL, HAROLD LEON, East Freetown, N. Y. (Age 21. Born East Freetown, N. Y.) 1928 B. S. in C. E., Union Coll. Summer 1927 Jun. Asst. C. E., Grade 1, New York State Highway Dept., on office and survey work. TT 4: P 4. Refers to H. Miller, W. C. Taylor.

980

(1) TASHJIAN, EDWARD HAGOP, Fairmount and Woodmere, Cleveland Heights, Ohio. (Age 40. Born Erzeroum, Armenia.) A. B. International Coll., Smyrna, Asia Minor. 1915 B. S., Coll. of Eng., Univ. of Wis. TT 4: P 4. June 1915 to June 1916 Inspector, Milwaukee County Highway (6 months) and Sewerage (6 months) Comms., Milwaukee, Wis. TT 0.5: SP 0.5. June to Oct. 1916 Layout Engr. with George A. Fuller Co., Milwaukee, Wis. TT 0.2: SP 0.2. Oct. 1917 to Aug. 1919 with Eng. Corps, A. E. F. TT 0.9: SP 0.9. Aug. 1919 to Aug. 1926 Constr. Inspector (Clerk of Works) with Walker & Weeks, Archts., Cleveland, Ohio, on Federal Bank, Cleveland City Library and Cleveland Medical Library. TT 6: SP 1: P 5: RC 5. Aug. 1926 to March 1927 with Hunkin & Conkey Constr. Co., Cleveland, as Supt. on marble building (\$300 000). 1927 to June 1928 abroad. TT 0.7: P 0.7: RC 0.7. TT 12.4: SP 2.7: P 9.7: RC 5.7. Refers to C. W. Lundoff, D. W. Mead, W. J. Watson, W. R. Weldman, C. R. Weymouth.

981

(10) THATCHER, JOHN ROBERT, Vicksburg, Miss. (Age 26. Born Oregon, Mo.) 1928 B. E., Univ. of Miss. TT 4: P 4. Refers to J. F. Coleman, J. H. Dorroh, J. H. Johnston, E. J. Tucker.

982

(2) THOMAS, JOHN GRIMES WALKER, 88 Bay State Road, Boston, Mass. (Age 25. Born Boston, Mass.) 1924 A. B., Harvard Coll. 1927 S. B., Harvard Eng. School.

Summer 1926 Apprentice with Proprietors of Locks and Canals, Lowell, Mass. Sept. 1927 to date Asst. in Civ. Eng., Harvard Eng. School. *TT 4: P 4.* Refers to G. M. Fair, H. J. Hughes, L. J. Johnson, G. F. Swain, H. M. Turner, J. W. G. Walker.

983

(14) **THOMSON, HARRY FREEMAN**, 605 Buder Bldg., St. Louis, Mo. (Age 40. Born Cincinnati, Ohio.) 1910 B. S., Washington Univ., St. Louis, Mo. *TT 4: P 4.* Sept. 1910 to Oct. 1914 Instructor in Elec. Eng., Massachusetts Inst. of Technology, Secy., E. E. Research Laboratory, Asst. Editor in Chf. of Penders *American Handbook for Electrical Engineers*. *TT 4.1: P 4.1.* Nov. 1914 to Oct. 1924 (except Nov. 1917 to Jan. 1919 Lieut., U. S. Navy) with Provident Chemical Works, St. Louis, as Asst. Supt., Eastern Mgr. (at New York City), Sales Mgr. and Vice-Pres.; after 1920 in charge of technical development and sales. *TT 10: P 10: RC 9: D 0.5.* Nov. 1924 to Sept. 1927 Executive Asst., Federal Phosphorus Co., and Asst. Vice-Pres., Southern Manganese Corporation, Birmingham, Ala., executive work, including engineering and commercial investigations of products, processes and locations for developments. *TT 2.9: P 2.9: RC 2.9.* Sept. 1927 to date Vice-Pres., Gen. Material Co., St. Louis, executive and technical work in ready-mixed concrete. *TT 0.8: P 0.8: RC 0.8.* *TT 21.8: P 21.8: RC 12.7: D 0.5.* Refers to A. C. Butterworth, H. E. Frech, A. P. Greensfelder, W. W. Horner, E. O. Sweetser.

984

(9) **THRALL, HOMER**, 311 South Main St., Ada, Ohio. (Age 27. Born Toledo, Ohio.) 1928 B. S. in C. E., Ohio Northern Univ. *TT 4: P 4.* May to Oct. 1925 Instrumentman, State Highway Dept. of Alabama. *TT 0.2: SP 0.2.* Oct. 1925 to April 1926 Chf. of Party with R. L. Williamson, Dothan, Ala., on subdivisions. *TT 0.5: P 0.5.* April to Oct. 1926 Chf. of Party and Jun. Engr., Santa Rosa County, Fla., on highway location and construction. *TT 0.5: P 0.5. TT 5.2: SP 0.2: P 5.* Refers to G. H. Elbin, A. R. Webb.

985

(15) **TIGNOR, EDGAR MILTON**, 217½ West Fifth St., Bartlesville, Okla. (Age 22. Born Chickasha, Okla.) 1928 B. S., Okla. Agri. and Mech. Coll. June 1928 to date Testing Engr., Pipe Line Dept., Empire Companies, Bartlesville, Okla., testing, inspecting and surveying gas-pipe lines. *TT 4: P 4.* Refers to J. Firth, E. R. Stapley.

986

(11) **TRAVERS, WILLIAM JASPER, Jr.**, R. F. D. No. 1, Box 40, Fullerton, Cal. Graduating student awarded San Francisco Section prize. (Age 21. Born near Fullerton, Cal.) 1928 A. B. in Civ. Eng., Stanford Univ. *TT 4: P 4.* Summers 1925-1927 Operating Engr., refrigerating plant, Placentia Orange Growers Association, operating compressors, pumps, etc. June 1928 to date Engr.'s Asst., Scofield-Twaits Co., Los Angeles, Cal., on office building construction, etc., making progress reports, drafting, estimating, etc. *TT 0.1: P 0.1. TT 4.1: P 4.1.* Refers to J. C. L. Fish, C. Moser, L. B. Reynolds, E. C. Thomas, C. B. Wing.

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(11) **TRIPP, JAMES GREGORY**, Coolidge Dam, San Carlos, Ariz. (Age 40. Born Chicago, Ill.) 2½ years student, Massachusetts Inst. of Technology. *TT 1: P 1.* June 1909 to May 1910 Rodman, Levelman, etc., Los Angeles Pacific Ry., Los Angeles, Calif. *TT 0.5: SP 0.5.* May 1910 to April 1918 Partner and Engr., Herringbone Metal Lath Co., Los Angeles, Cal., architectural and engineering construction machinery and supplies. *TT 7: P 7: RC 7: D 7.* April 1918 to Dec. 1924 Supt. and Engr., Bent Bros., Los Angeles, pipe lines, reservoirs, oil and water, dams, Littlerock, Superv., Emigrant Creek; also Feb. to July 1919 Partner with C. S. Robinson, Los Angeles, Devils Gate Dam Spillway Tunnel, July 1919 to March 1920 Partner, Robinson & Tinkler on contract for construction, Auberry Tunnel for San Joaquin Light & Power Co., and March 1920 to Feb. 1921 Mgr. and Partner, Pelton Concrete Tile Co., Los Angeles, Cal., building houses for Goodyear Tire & Rubber Co. *TT 6.7: P 6.7: RC 6.7: D 1.6.* Jan. to July 1925 Engr., Strange & Maguire, Salt Lake City, Utah, bidding on large western dams and storm drains. *TT 0.5: P 0.5.* July to Nov. 1925 Supt. of Constr., Robinson-Roberts Co., Los Angeles, Storage Tank No. 10, General Petroleum Co. *TT 0.4: P 0.4: RC 0.4.* Jan. to April 1926 Gen. Supt., C. U. Heuser, Glendale, on general construction. *TT 0.3: P 0.3: RC 0.3.* April 1926 to Oct. 1927 Gen. Supt., Carl Pleasant Inc., Phoenix, Ariz., Beardsley Project (\$4 500 000), building Lake Pleasant Dam. *TT 1.5: P 1.5: RC 1.5: D 0.5.* Oct. 1927 to date Gen. Supt., Atkinson Kier Bros. Spicer Co., Los Angeles, San Carlos Project (\$5 500 000), building Coolidge Dam. *TT 0.7: P 0.7: RC 0.7: D 0.7. TT 18.6: SP 0.5: P 18.1: RC 16.6: D 9.8.* Refers to E. C. Eaton, A. F. Garlinghouse, L. H. Garlinghouse, L. C. Hill, H. L. Jacques, W. C. Langfitt, F. A. Noetzli, C. R. Olberg, M. M. O'Shaughnessy.

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(1) **TROY, ANTHONY VINCENT**, 112 School St., Yonkers, N. Y. (Age 24. Born Yonkers, N. Y.) 1927 B. S. in C. E., N. Y. Univ. *TT 4: P 4.* Feb. 1926 to Feb. 1927 Jun. Asst. Engr., Grade 1, with Charles MacDonald, acting as Transitman for field party. *TT 1: P 1: D 1.* July 1927 to March 1928 Constr. Supt., Naples Holding Corporation, in charge of construction. *TT 0.7: P 0.7: RC 0.7. TT 5.7: P 5.7: RC 0.7: D 1.* Refers to E. G. Hooper, C. T. Schwarze.

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(13) **TSCHANTZ-HAHN, ALBERT LOUIS**, 5822 Genoa St., Oakland, Cal. (Age 22. Born San Francisco, Cal.) 1928 B. S. in C. E., Univ. of Cal. *TT 4: P 4.* June to Aug. 1923 Chainman, Rodman and Instrumentman, McCloud River R. R., McCloud, Cal. May 1925 to May 1926 Draftsman, Computer, Chainman, Rodman and Instrumentman, East Bay Water Co., Oakland, Cal. June to Aug. 1926 Draftsman, Computer and Statistician, San Pedro Chamber of Commerce, on design and location of outfall sewers. Sept. to Dec. 1926 Draftsman with R. E. Davis, Cons. Engr., Berkeley, Cal., technical textbook illustration work, Laboratory Asst. Draftsman and Computer, Arch Dam Investigation Committee, material testing and report work. Jan. to May 1927 Draftsman, Computer and Designer, Victor Talking Machine Co., Oakland, Cal., hydraulic and steam piping, surveys, foundations, etc. May to July 1927 Draftsman, Computer and Statistician for Univ. of California, under R. E. Davis, building studies and preliminary layout work. *TT 0.1: SP 0.1.* July to Aug. 1927 Draftsman for R. E. Davis, on special laboratory apparatus. *TT 0.1: SP 0.1.* Aug. to Nov. 1927 in charge of designs and surveys, and Supt. of Constr. for Victor Talking Machine Co., on three reinforced concrete cooling basins (300 000 gal.), pump sump (6 000 gal.), valve chamber, etc., with hydraulic piping, sprays, motors and pumps. *TT 0.3: P 0.3: RC 0.3: D 0.3.* Nov. 1927 to date Draftsman and Computer with R. E. Davis, on heat-insulation studies, studies of concrete, etc. *TT 0.3: SP 0.3. TT 4.8: SP 0.5: P 4.3: RC 0.3: D 0.3.* Refers to R. E. Davis, C. Derleth, Jr., B. A. Etcheverry, F. S. Foote, C. G. Hyde, G. E. Troxell.

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(13) **TURNER, WILLIAM FITZHUGH**, Care, Southern Pacific R. R., Sacramento, Cal. (Age 44. Born New Orleans, La.) 1906 C. E., Princeton Univ. *TT 4: P 4.* July 1906 to date with Southern Pacific R. R. as follows: July to Oct. 1906 Rodman; Oct. 1906 to May 1907 Draftsman; May 1907 to Nov. 1910 Asst. Engr. on field surveys; Nov. 1910 to June 1918 and Sept. 1919 to June 1920 Asst. Div. Engr., in responsible charge of maintenance, field surveys, office estimating, preparation of plans and supervision of construction of new track layouts, water stations, pipe lines, etc.; June 1918 to Sept. 1919 and June 1920 to date Div. Engr., Salt Lake, Tucson and Sacramento Divs., in responsible charge of maintenance (approx. \$3 000 000 annually) of track, bridges, trestles, buildings, water and fuel stations, signals, and of engineering and construction of new station and yard, Sacramento, Cal. (\$2 500 000), snow-shed, Sierra Nevada Mountains (\$2 000 000) ballasting Tucson Div. (300 miles) (\$1 000 000), yard extensions, Roseville, Cal. (\$400 000) and broad gauging Lake Tahoe Branch (\$300 000), etc. *TT 19.8: SP 2.2: P 17.6: RC 17.6: D 17.6. TT 23.8: SP 2.2: P 21.6: RC 17.6: D 17.6.* Refers to G. W. Corrigan, J. A. Given, C. R. Harding, W. H. Kirkbride, C. Maughmer, G. W. Rear.

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(8) **TYK, GEORGE SYLVESTER**, 1618 South Fifty-Eighth Court, Cicero, Ill. (Age 23. Born Chicago, Ill.) 1928 B. S. in Civ. Eng., Armour Inst. Tech. June 1927 to date Draftsman, Engr.'s Dept., Palmer House Co. *TT 4: P 4.* Refers to J. R. Griffith, R. L. Stevens.

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(11) **TYRRELL, FRANK CHARLES**, 4230 Bryant St., Denver, Colo. (Age 21. Born Peck, Kans.) 1928 B. S. in C. E., Univ. of Colo. *TT 4: P 4.* Refers to R. L. Downing, F. R. Dungan, C. L. Eckel, H. J. Gilkey, A. O. Ridgway.

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(1) **VALERIUS, HERMAN POMEROY**, 49 Rosalie Ave., Clifton, N. J. (Age 38. Born Brooklyn, N. Y.) Jan 1908 to Sept. 1913 Draftsman, Botany Worsted Mills, Passaic, N. J. *TT 3.9: SP 1.9: P 2.* Sept. 1913 to April 1917 Estimator, Surveyor and Designer, Erie R. R. Co., New York City. *TT 4.6: P 4.6: RC 3: D 3.* April 1917 to Jan. 1918 Designer of reinforced concrete foundations, Chile Exploration Co., New York City. *TT 0.8: P 0.8: RC 0.8: D 0.8.* Jan. 1918 to April 1919 Engr., Brown Hoisting Machinery Co., Cleveland, Ohio, on erection of electric gantry cranes in France. *TT 1.3: P 1.3: RC 1.3.* April 1919 to Dec. 1921 Engr. in charge of construction of dry dock and pier, French Chamber of Commerce, Marseille, France. *TT 2.7: P 2.7: RC 2.7.* Dec. 1921 to Dec. 1927 Chf. Engr., The Foundation Co., Paris, France; work included an artificial silk factory,

cold-storage plant, a church, a hotel, picture theatre, warehouse, etc. TT 6: P 6: RC 6: D 6. TT 19.3: SP 1.9: P 17.4: RC 18.8: D 9.8. Refers to F. W. Abbot, J. W. Doty, H. F. King, J. W. Smith, C. H. Splitstone.

994

(1) VALIENTE, MANUEL PEREA, B. Masso alta No. 43, Santiago de Cuba, Cuba. (Age 28. Born Santiago de Cuba, Cuba.) 1922 Archt. and Civ. Engr., Univ. de la Habana. TT 4: P 4. Oct. 1922 to July 1923 surveying and private practice, Santiago de Cuba. TT 0.7: P 0.7: RC 0.5: D 0.2. July 1923 to March 1924 Asst. Engr. on construction of viaduct over Rio Grande in Oriente Province, Cuba, and of railroad (20 miles). TT 0.7: P 0.7: RC 0.7. June to Oct. 1925 travelled in United States and took summer course at Columbia Univ., New York City. Nov. 1925 to Dec. 1927 associated with contractors on construction of private residences in Havana. TT 2.1: P 2.1: RC 1.1: D 1. March 1924 to May 1925 and Dec. 1927 to date Asst. Engr., Dept. of Public Works, Cuba, on construction, until May 1925 of water-supply system for City of Guantanamo, Cuba, and since Dec. 1927 of aqueduct for Santiago de Cuba (\$6 000 000). TT 1.3: P 1.3: RC 1.1: D 0.7. TT 8.8: P 8.8: RC 3.4: D 1.9. Refers to A. M. Alvarez y de Urrutia, E. J. Chibbas, N. Colas, I. G. Jauregui, A. F. de Jough, M. Lora y Romero, J. J. Manzanilla y Carbonell.

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(1) VANDERHOUT, WILLIAM, 335 Union Ave., Elizabeth, N. J. (Age 23. Born DeSoto, Mo.) 1928 B. S., Cooper Union Inst. Tech. TT 4: P 4. Refers to H. R. Codwise, F. E. Foss, G. Morrison.

996

(1) VAN INGEN, DANIEL KOELMAN, Jr., 394 South Belmont Ave., Newark, N. J. (Age 21. Born Newark, N. J.) 1928 C. E., Rens. Pol. Inst. TT 4: P 4. Refers to E. R. Cary, T. R. Lawson.

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(1) VAYDA, EUGENE, 230 West One Hundred and Seventh St., New York City. (Age 35. Born Budapest, Hungary.) 1918 C. E., Royal Tech. Univ. of Hungary. TT 4: P 4. March 1918 to May 1921 Jun. Engr. with Klauber & Vajda, Engrs. and Contrs., Budapest, Hungary, on topography of gravel mines, dredging and valuation. TT 2.7: SP 0.5: P 2.2. May 1921 to June 1924 Asst. Engr. (Chf. of Sec.), Study and Constr. Dept., Roumanian State R. R., on study of new lines, triangulation of tunnels, staking out, topography, etc. TT 3.1: P 3.1. Dec. 1924 to April 1925 Structural Detailer, Hay Foundry & Iron Works, Newark, N. J. TT 0.2: P 0.2. June 1925 to June 1927 Designer and Detailer, New York Central R. R., on track layout, design, detailing and estimate of concrete duct lines and substations for track electrification, grade-crossing elimination plans, etc. TT 2: P 2: D 1. June to Dec. 1927 Structural Designer, Lehigh Valley R. R., on concrete design of transfer platforms and steel design of buildings in new freight terminal. TT 0.5: P 0.5: RC 0.5: D 0.5. Dec. 1927 to March 1928 Structural Designer of tank foundations, plant layout, etc., Grasselli (N. J.) Dyestuff Corporation. TT 0.2: P 0.2: RC 0.2: D 0.2. March to May 1928 Flat Slab Designer with O. S. Schlich, Cons. Engr., New York City, on mill buildings. TT 0.2: P 0.2: RC 0.2: D 0.2. TT 13.1: SP 0.5: P 12.6: RC 1: D 2. Refers to E. E. Halmos, C. D. Kaminsky, A. W. Pratt, O. S. Schlich, A. C. Weiser.

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(2) VEEDER, HERMAN GREIG, Jr., P. O. Box 413, Bristol, R. I. (Age 24. Born Pittsburgh, Pa.) 1925 C. E., Cornell Univ. TT 4: P 4. Aug. 1925 to date Engr. of Erection, McClintic-Marshall Co., Pottstown, Pa., 2 3/10 years in college apprentice course, then on erection equipment and erection of Mt. Hope Bridge, Bristol, R. I. TT 1.7: SP 1.1: P 0.6: RC 0.6: D 0.3. TT 5.7: SP 1.1: P 4.6: RC 0.6: D 0.3. Refers to F. A. Barnes, W. G. Brenneke, D. S. Gendell, Jr.

999

(11) VOGT, FREDRIK, U. S. Bureau of Reclamation, Denver, Colo. (Age 35. Born Oslo, Norway.) 1914 C. E., and 1924 Doc. Eng., Norwegian Inst. Tech., Trondhjem, Norway. TT 4: P 4. July 1914 to April 1915 Asst., surveying and office work on design of water-power plants and water supply, and July 1916-March 1918 Engr. on design and construction of power-plants, etc., all for Kincks Vandbyggningskontor, Cons. Engr., Oslo, Norway. TT 2.4: P 2.4: RC 0.7: D 0.7. April to July 1915 in military service. July 1915 to Feb. 1916 Asst. to A/S Saudefaldene, Saude, Norway, field and office work on construction of power plants. TT 0.6: P 0.6. March-June 1916 Asst. to Prof. in charge of river, harbor and water-power plant work, July 1922-June 1924 Asst. to Prof. in Applied Mechanics, and July 1924-June 1927 Acting Prof. in Applied Mechanics, Norwegian Inst. of Technology; after July 1924 also on work for Kincks Vandbyggningskontor. March to June 1922 studied water-power plants in Germany and Switzerland. TT 5.3: P 5.3: RC 5. April 1918 to March 1922 Engr. for Tromse Elektricitetsverk (municipal power plant), Norway, in charge of construc-

tion, enlargement of storage dam for Simavik power plant, design and construction of Skarsfjord power plant. *TT 4: P 4: RC 4: D 1.* July 1927 to Feb. 1928 miscellaneous work for Mr. Jorgensen, San Francisco and B. F. Jakobsen and Fred A. Noetzel, Los Angeles. *TT 0.6: P 0.6.* Feb. to May 1928 Associate Engr. and May 1928 to date Cons. Engr., U. S. Bureau of Reclamation, Denver, Colo., on tests of model dam. *TT 0.3: P 0.3: RC 0.3.* *TT 17.2: P 17.2: RC 10: D 1.7.* Refers to H. J. Gilkey, I. E. Houk, B. F. Jakobsen, E. C. LaRue, F. A. Noetzel, H. H. Rode, J. L. Savage.

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(4) **WAIDELICH, ALFRED THOMAS**, 5216 North Tenth St., Philadelphia, Pa. Graduating student awarded Philadelphia Section prize. (Age 21. Born Philadelphia, Pa.) 1928 B. S. in C. E., Drexel Inst. *TT 4: P 4.* Refers to H. L. Bowman, S. J. Leonard.

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(2) **WALLENIUS, JOHN WILLIAM**, 93 Lowell St., Springfield, Mass. (Age 21. Born Springfield, Mass.) 1928 B. S. in Civ. Eng., Sheffield Sci. School. *TT 4: P 4.* Refers to C. T. Bishop, R. S. Kirby, P. G. Laurson, J. C. Tracy.

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(15) **WARDEN, THOMAS BENJAMIN**, 1011 Chronicle Bldg., Houston, Tex. (Age 45. Born McKinney, Tex.) 1903 B. S. C. E., Tex. Agri. and Mech. Coll. *TT 4: P 4.* July to Sept. 1903 Rodman and Instrumentman with Perry Hyatt and Sour Lake Township Co. *TT 0.1: SP 0.1.* Sept. 1903 to April 1907 with various railroads, until July 1906 as Rodman, Chainman and Instrumentman, then Instrumentman and Res. Engr. on reconstruction, G. V. G. & N. R. R., San Carlos, Ariz. *TT 2: SP 1.5: P 0.5: RC 0.5.* Aug. 1907 to Aug. 1914 Surveyor and Jun. Engr., U. S. Engrs., Dallas, Tex., on river and harbor work, surveys and construction. *TT 6.5: SP 0.5: P 6: RC 3.* Aug. 1914 to Sept. 1919 on surveys and road work in Bowie County, and other work (not engineering). *TT 1: P 1: RC 1.* Sept. 1919 to March 1921 Res. Engr. with Hess & Skinner, Dallas, Tex., in charge of highway construction in Cass and Bowie Counties. *TT 1.6: P 1.6: RC 1.6.* 1921 to March 1922 Asst. Engr. with Fred P. Holt, Groesbeck, Tex., in charge of highway construction, Limestone County. *TT 1: P 1: RC 1: D 1.* March 1922 to May 1927 County Engr., Marion County, Tex., in charge of location, design and construction of system of highways. *TT 5.2: P 5.2: RC 5.2: D 5.2.* May 1927 to date Engr.-Mgr., Gulf Coast Good Roads Association. *TT 1.2: P 1.2: RC 1.2: D 1.2.* *TT 22.7: SP 2.2: P 20.5: RC 13.5: D 7.4.* Refers to G. Gilchrist, T. E. Huffman, G. R. Johnston, J. M. Page, J. E. Pirie, A. P. Rollins, C. A. Thanheiser.

1003

(10) **WARNOCK, JACOB EUGENE**, U. S. Engr. Office, Chattanooga Tenn. (Age 25. Born Honey Creek, Ind.) 1925 B. S. in C. E., Purdue Univ. *TT 4: P 4.* June to Dec. 1925 Chf. of Party and Topographer, U. S. Corps of Engrs., Chattanooga, Tenn., on aerophoto topographic surveys of damsites and reservoirs on Tennessee River survey. *TT 0.6: P 0.6: RC 0.6.* Jan. to April 1926 Asst. to Office Engr., American British Improvement Corporation, Ft. Lauderdale, Fla., on computations of curvilinear layouts and assembly of topographic surveys. *TT 0.3: P 0.3: D 0.3.* May 1926 to date Jun. Engr., U. S. Engr. Office, Chattanooga, Tenn., on assembly of field data, computation of stream discharge data, estimating and proposal work on water power development, flood determinations. *TT 2.1: P 2.1: RC 2.1: D 2.1.* *TT 7: P 7: RC 2.7: D 2.4.* Refers to W. R. King, C. Voetsch, J. Wright.

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(7) **WATERHOUSE, CHARLES EUGENE**, 1701 South Twelfth St., Burlington, Iowa. (Age 53. Born Oakville, Iowa.) 1907 A. B. in Mathematics, and 1908 B. S. in Civ. Eng., Univ. of Ill. *TT 4: P 4.* Summer 1905 Rodman with County Surveyor, Mississippi County, Mo., at Charlestown, Mo. July 1908 to Sept. 1909 with Harmon Eng. Co., Peoria, Ill., as Instrumentman, transit, level, planetable and supervision of construction in drainage work in Iowa and Illinois, also designing ditches, levees, etc. *TT 0.6: SP 0.6.* Sept. 1909 to Feb. 1911 City Engr., Mt. Pleasant, Iowa, paving and sewer design and construction. *TT 1.5: P 1.5: RC 1.5.* March 1911 to Sept. 1912 Supt. of Constr. in reclamation work, Federal Constr. Co., Beardstown, Ill., being Engr. in charge of construction. *TT 0.6: P 0.6: RC 0.6.* Oct. 1912 to March 1917 Asst. Engr. on maintenance, Chicago, Burlington & Quincy Ry. Co., Burlington, Iowa, and Chicago, Ill. *TT 4.5: P 4.5: RC 2: D 2.5.* April 1917 to July 1918 City Engr., Burlington, design and construction. *TT 1.3: P 1.3: RC 0.6: D 0.7.* July 1918 to date County Highway Engr., Des Moines County, Iowa, general engineering and supervision; Dec. 1925 to March 1927 also Maintenance Supt. of Primary or State roads in County. *TT 9.9: P 9.9: RC 5.8: D 4.1.* *TT 22.5: SP 0.6: P 21.9: RC 10.5: D 7.3.* Refers to R. Duerr, J. A. Harmon, M. L. Hutton, F. D. H. Lawlor, W. H. Root, F. R. White, C. H. Young.

1005

(8) **WATT, JAMES HUSTON, R. R.** No. 1, Downers Grove, Ill. (Age 26. Born Pontiac, Ill.) Registered Structural Engr., State of Illinois. 1922 B. S. in Civ. Eng., Armour Inst. Tech. TT 4: P 4. June 1922 to date with McClintic Marshall Co. as follows: 1 year detailing and checking; 1 year erecting structural steel, being Timekeeper (8 months) and in charge of erection (4 months); approx. 4 years designing steel structural and estimating structural work; title Asst. Engr. TT 6: P 6: RC 4.9: D 3.9. TT 10: P 10: RC 4.9: D 3.9. Refers to J. W. Davis, C. H. Harlan, R. MacMinn, R. J. Smith, F. F. Stager, G. L. Taylor, P. Willis.

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(1) **WEINBERG, HYMAN,** 521 West 111th St., New York City. (Age 21. Born New York City.) 1928 B. S. in C. E., Mass. Inst. Tech. TT 4: P 4. Refers to J. B. Babcock, 3d, C. M. Spofford, R. G. Tyler.

1007

(8) **WESTBY, SIGFRIED HELMAR ANDREW,** 308 Wheelock St., Elgin, Ill. (Age 23. Born Elgin, Ill.) 1928 B. S., Univ. of Ill. TT 4: P 4. Refers to W. C. Huntington, G. W. Pickels, C. C. Willey.

1008

(1) **WHEATLEY, WILLIAM GEOFFREY,** Brot via Joginder Nagar, Mandi State, India. (Age 27. Born Hessele, East Yorkshire, England.) 1924 B. E., Univ. of Liverpool. TT 4: P 4. Sept. 1919 to Aug. 1920 Apprentice, Elec. Eng. Staff, British-American Tobacco Co., Ltd., Liverpool, England, on lighting and power installation and maintenance, erection and repair of elevators. TT 0.5: SP 0.5. Aug. 1924 to date with Public Works Dept., Punjab, India, until March 1925 as Asst. Executive Engr., Indian Service of Engineers, Irrigation Branch, being on probation as Asst. to A. B. Rayner, supervising field work and preparing estimates on headworks of Upper Bari Doab Canal and remodeling and rebuilding of head regulator; April 1925 to Sept. 1926 in charge of same headworks maintenance, and 30 miles of canal and 10 miles of river, completed rebuilding of regulator and constructed several canal and river-training works; Oct. 1926 to March 1927 Asst. Supt. of Central Workshops, at Amritsar, on design of large sluices and irrigation appliances, preparation of hydro-electric and lift irrigation schemes and inspection of erection of structural steelwork, etc.; April to Nov. 1927 Supt. of same workshops being responsible for operation and for design and workmanship; also designed and prepared mechanical or hydro-electric projects to submit to government; had charge of small low-fall hydro-electric installation; since Dec. 1927 with Hydro-Elec. branch in charge of construction of head work of Uhl River hydro-electric project, including two weirs, decantation chambers, flume, diurnal reservoir, forebay and tunnel portal. TT 3.8: P 3.8: RC 2.7: D 1.1. TT 8.3: SP 0.5: P 7.8: RC 2.7: D 1.1. Refers to B. C. Battye, E. S. Lindley, D. S. McPhail, A. B. Rayner. (Applies in accordance with Sec. 1, Art. I, of the By-laws.)

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(10) **WHITAKER, FRANK OGBURN,** Oak Ridge, N. C. (Age 22. Born Oak Ridge, N. C.) 1928 B. S. in Civ. Eng. Univ. of N. C. TT 4: P 4. Refers to G. M. Braune, T. F. Hickerson, H. F. Janda.

1010

(9) **WICKS, CHARLES HENRY,** Mt. Gilead, Ohio. (Age 24. Born Clyde, Ohio.) 1925 B. C. E., Ohio State Univ. TT 4: P 4. 1925 to date Deputy County Surveyor, Morrow County, Ohio, field and office work. TT 2.6: P 2.6: RC 2.6: D 2. TT 6.6: P 6.6: RC 2.6: D 2. Refers to F. H. Eno, C. T. Morris, J. C. Prior, J. R. Shank, C. E. Sherman, R. C. Sloane.

1011

(1) **WILDER, BURL ALTON,** 140 Fifth Ave., North Pelham, N. Y. (Age 28. Born Lester-shire, N. Y.) 1922 C. E., Rens. Pol. Inst. TT 4: P 4. July to Sept. 1922 Draftsman, Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa., on design and drafting of steel tanks and towers. TT 0.1: SP 0.1. Oct. to Dec. 1922 Foreman with L. A. Wilder, Contr., Chenango Forks, N. Y., on concrete walks, curbs, pavement, etc. TT 0.2: SP 0.2. 1923 Subcontractor on New York state highway work in Delaware County, fences, culverts, small concrete projects. TT 0.5: SP 0.5. Jan. to March 1924 Asst. Project Engr., Florida State Highway, at Oak Hill, Fla., surveys on new state road project. TT 0.2: SP 0.2. April to Sept. 1924 Contr., town highway bridges, concrete and steel, Broome and Chenango Counties, N. Y. TT 0.5: P 0.5: RC 0.5. Sept. 1924 to Aug. 1925 member of firm, Blinn & Wilder, Engrs. and Contrs., surveys, concrete bridges, in Florida. TT 0.9: P 0.9: RC 0.9. Nov. 1925 to Feb. 1926 Asst. Supt. and Foreman, DuBois (Pa.) Constr. Co., on Hallstead River Bridge over Susquehanna River, in charge of coffer dams and piling. TT 0.3: P 0.3: RC 0.3. March 1926 to date Supt. and Engr., L. E. McLaughlin, Inc., New London, Conn., on 80-ft. span

concrete arch, Rhode Island, paper mill improvements and concrete pavement, Connecticut, and two stone-faced bridges (one 2-arch and one rigid-frame concrete) for Westchester County Park Comm. *TT 2.4: P 2.4: RC 2.4: TT 9.1: SP 1: P 8.1: RC 4.1.* Refers to C. L. Appleton, R. S. Blinn, E. R. Cary, L. W. Clark, W. W. Rousseau.

1012

(1) WILLIAMS, CHARLES WYATT, Old Stone House, Spuyten Duyvil, New York City. (Age 35. Born Corning, N. Y.) 1915 B. S. Mass. Inst. Tech. *TT 4: P 4.* June 1915 to May 1916 Jun. Asst. Engr., Public Service Comm. of New York, on subway construction, instrumentman giving line and grade, recording surface conditions, inspecting underpinning. *TT 0.5: SP 0.5.* May 1916 to March 1917 Draftsman, Truscon Steel Co., Syracuse, N. Y., and Youngstown, Ohio, designing and detailing reinforced-concrete structures. *TT 0.4: SP 0.4.* March to July 1917 Field Engr. with Thompson & Binger, Engrs. and Contrs., reinforced concrete; instrument work, entire charge of technical matters in field, supervising placing of reinforcing steel, mixing and placing concrete, etc., on reinforced concrete warehouse at Wilmington, Del. (\$150 000). *TT 0.4: P 0.4.* July 1917 to June 1918 Chf. Machinist's Mate, U. S. Naval Reserve Force, in charge of design and construction at U. S. Naval Home, Philadelphia, Pa., designed and built pump house, pipe tunnel, laundry, alterations to boiler house (total about \$50 000). *TT 0.9: P 0.9: RC 0.9: D 0.9.* June 1918 to July 1919 Ensign, U. S. Navy (T), at Submarine Base, New London, Conn., and Second in command of U. S. S. D-3 (Submarine). *TT 1.1: P 1.1: RC 0.3.* July 1919 to July 1923 Asst. Constr. Mgr., Thompson & Binger, Inc., New York City, in charge of cost records, purchasing, care and operation of construction equipment, some supervision of small jobs, etc., also making plans, estimates and propositions on prospective industrial developments. *TT 4: P 4: RC 1: D 1.* July 1923 to June 1927 Asst. to Vice-Pres., Frederick Snare Corporation, Gen. Contrs., preparing designs and estimates, negotiating contracts and supervising work on small contracts, including rebuilding freight station, Erie R. R., Jersey City, pipe line and oil-separating tank, Barber Asphalt Co., salt water intake and screen chamber, Raritan Copper Co. (total about \$300 000) and bulkheads for Ford Motor Co., Kearny, N. J., and for Chapman's docks, Brooklyn, N. Y. *TT 3.9: P 3.9: RC 3: D 1.* June 1927 to date Secy., Suburban Eng. Co., Gen. Contrs., administration of office, preparing estimates, negotiating with clients, etc. *TT 1.1: P 1.1. TT 16.3: SP 0.9: P 15.4: RC 5.2: D 2.9.* Refers to A. Alexander, W. D. Binger, G. S. Frost, R. C. R. Gautier, G. W. Kittredge, F. J. Litter, E. S. Skillin, C. M. Spofford, G. W. Thompson, E. DeV. Tompkins.

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(8) WILLIAMS, EDWIN OLIVER, 2610 Ridge Road, Evanston, Ill. Graduating student awarded Illinois Section prize. (Age 25. Born Terrell, Tex.) 1927 B. S., and 1928 C. E., Northwestern Univ. *TT 4: P 4.* Aug. 1918 to June 1919, summers 1920 and 1921 and Sept. 1922 to Jan. 1923 Stationary Engr., Water Service Dept., and Summer 1924 Water Service Repairman, El Paso & Southwestern R. R. Summer 1923 on highway construction for L. O. Hales, Topeka, Kans. Summer 1926 Instrumentman and Timekeeper, Evanston St. Ry. Summer 1927 Water Service Repairman, Southern Pacific Ry. Feb. to June 1927 and Sept. 1927 to June 1928 Laboratory Asst. in Hydraulics, Northwestern Univ. *TT 0.5: SP 0.5. TT 4.5: SP 0.5: P 4.* Refers to J. W. Alvord, A. S. Hathaway, J. A. Moss, W. D. Pence, C. L. Post.

1014

(5) WILLIS, EDWARD ALLEN, U. S. Bureau of Public Roads, Washington, D. C. (Age 25. Born Janesville, Minn.) 1928 B. S., Iowa State Coll. *TT 4: P 4.* Sept. 1922 to Sept. 1926 Senior Scientific Aid, research on subgrades and road materials, and June 1928 to date Jun. Civ. Engr., U. S. Bureau of Public Roads, Washington, D. C. *TT 2: SP 2. TT 6: SP 2: P 4.* Refers to T. R. Agg, R. A. Caughey, A. H. Fuller, C. A. Hogentogler, E. F. Kelley.

1015

(14) WILLIS, ROBERT ADAMS, 1313 Syndicate Trust Bldg., St. Louis, Mo. (Age 29. Born Sedalla, Mo.) 1925 B. S., Coll. of Eng., Univ. of Mo. *TT 4: P 4.* 1917 to Oct. 1925 (except while student) with M. of W. Dept., Missouri-Kansas-Texas R. R., engaged as follows: Nov. 1917 to Sept. 1918 Chairman and Rodman; Dec. 1918 to Sept. 1921 Rodman, Bridge Inspector and Asst. Engr., in charge of yard and sewer layouts, concrete bridge construction, etc.; Jan. to Sept. 1922 Tile Inspector, Parsons, Kans., Engr. in charge of drainage projects; April to Sept. 1923 and April to Sept. 1924 Concrete Inspector, Engr. in charge of concrete bridge construction; May to Oct. 1925 Draftsman, Chf. Engr.'s office. *TT 4: SP 1: P 3: RC 2.5: D 0.5.* Oct. 1925 to Jan. 1926 Field Engr., Riverland Oil Co., Tulsa, Okla., oil field surveying and mapping. *TT 0.1: SP 0.1.* March 1926 to date Office Engr., Portland Cement Assoc., concrete design and office management. *TT 2.4: P 2.4: RC 2.4. TT 10.5: SP 1.1: P 9.4: RC 4.9: D 0.5.* Refers to B. L. Brown, H. E. Frech, E. J. McCaustland, J. C. Pritchard, H. K. Rubey.

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(10) **WILMORE, CARLTON ADAMS**, 712 Comer Bldg., Birmingham, Ala. (Age 44. Born Winchester, Ind.) 1908 B. S. in E. E., Ala. Pol. Inst. TT 4: P 4. Aug. 1910 to April 1916 Draftsman, Estimator and Sales Engr., Chickasaw Iron Works, Memphis, Tenn. TT 3.9: SP 1.9: P 2: D 2. May 1916 to March 1922 Chf. Draftsman, Memphis Steel Constr. Co., Greensburg, Pa. TT 5.8: P 5.8: RC 5.8: D 5.8. April to Sept. 1922 Asst. to Gen. Mgr., W. N. Kratzer Co., Pittsburgh, Pa. TT 0.4: P 0.4: RC 0.4: D 0.4. Sept. 1922 to May 1928 Dist. Mgr., Birmingham Office, Nashville (Tenn.) Bridge Co. TT 5.7: P 5.7: RC 5.7: D 5.7. May 1928 to date Pres., C. A. Wilmore & Associates, Inc., Engrs., Birmingham, Ala. TT 0.2: P 0.2: RC 0.2: D 0.2. TT 20: SP 1.9: P 18.1: RC 12.1: D 14.1. Refers to L. C. Anderson, R. P. Boyd, A. J. Dyer, J. M. Harbert, E. L. Harrison, A. C. Polk, R. A. Smallman.

1017

(6) **WILSON, SAMUEL ALLAN**, Leetsdale, Pa. (Age 21. Born Philadelphia, Pa.) 1928 B. S. in C. E., Drexel Inst. June to Dec. 1925 Chairman and Field Computer on survey, and June to Dec. 1926 Draftsman and Computer in office, Pennsylvania Dept. of Highways. March to June 1927 Draftsman and Office Computer on town layouts, Remington-Vosbury Co., Cons. Engrs., Camden, N. J. June 1928 to date with Leetsdale Shop, McClintock-Marshall Co., Pittsburgh, Pa. TT 4: P 4. Refers to H. L. Bowman, S. J. Leonard.

1018

(8) **WOJDYGO, JOSEPH MORTIMER**, 6047 South Spaulding Ave., Chicago, Ill. (Age 21. Born Chicago, Ill.) 1928 B. S. C. E., Purdue Univ. TT 4: P 4. Refers to E. L. Eriksen, W. A. Knapp, R. B. Wiley.

1019

(7) **WOOD, JEROME W.**, 801 Main St., Niles, Mich. (Age 21. Born Niles, Mich.) 1928 B. S. C. E., Univ. of Mich. TT 4: P 4. Refers to J. H. Cissel, L. M. Gram.

1020

(4) **WOODWARD, RICHARD MORTON**, Eleventh and Market Sts., Philadelphia, Pa. (Age 32. Born Fitchburg, Mass.) 1920 B. S. E. in C. E., Univ. of Mich. TT 4: P 4. Sept. 1918 to March 1920 Draftsman and Instrument work, Southern Ry. Co. TT 0.7: SP 0.7. July 1920 to April 1922 Draftsman, Hughes-Keenan Co., Mansfield, Ohio, being Detailer of structural steel and ornamental iron, securing field information for stairs, etc. TT 1.8: P 1.8. June to Aug. 1922 Instrumentman, Univ. of Pennsylvania, rerunning and checking survey for future athletic fields. TT 0.2: P 0.2: RC 0.2. Sept. 1922 to Feb. 1923 Instrumentman and Timekeeper, J. S. Rogers Co., Philadelphia on construction of grammar school, Bryn Mawr, Pa. TT 0.3: SP 0.1: P 0.2: RC 0.2. Feb. 1923 to April 1928 with Stone & Webster, Inc., as follows: Feb. 1923 to April 1925 on work for Victor Talking Machine Co., Camden, N. J., until May 1924 as Field Engr. laying out and checking work for building trades on construction of 8-story factory building and 3-story addition to old factory, then Office Engr. in charge of compiling unit-cost reports, progress charts, monthly estimates, etc., for construction of 10-story factory building, last 6 months acting as Res. Engr.; April to Nov. 1925 Field Engr., laying out and checking work for building trades on construction of one section of Richmond Station, Philadelphia Elec. Co., and last 3 months supervised subcontract work on all sections; Nov. 1925 to April 1927 Office Engr. (5 months), Field Engr. (7 months) and Res. Engr. (5 months), on demolition of old and construction of new boiler house (five 1021-h. p. powdered coal fuel boilers, etc.) for Franklin Sugar Refining Co., Philadelphia; July 1927 to April 1928 Field Engr. (4 months) and Res. Engr. (5 months) on construction of boiler house (three 1732-h. p. stocker-driven boilers, etc.) for Vacuum Oil Co., Paulsboro, N. J. TT 5: P 5: RC 3.4. April 1928 to date Asst. to Chf. Engr., Stanley Co. of America, checking and inspecting plans, specifications and erection of new theatres. TT 0.3: P 0.3. TT 12.3: SP 0.8: P 11.5: RC 3.8. Refers to E. R. Akers, G. E. Chamberlin, J. H. Cissel, J. B. Corridon, L. M. Gram, H. E. Riggs, C. O. Wisler.

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(2) **WOODWORTH, KINGSLEY BLISS**, 69 Pineywoods Ave., Springfield, Mass. (Age 23. Born Attleboro, Mass.) 1928 C. E., Rens. Pol. Inst. TT 4: P 4. Refers to E. R. Cary, L. W. Clark, H. B. Compton, T. R. Lawson, W. W. Rousseau.

1022

(15) **WORLEY, STEWART EARL**, 309 Ogden St., Bastrop, La. (Age 22. Born Beekman, La.) 1928 B. C. E., La. State Univ. TT 4: P 4. Refers to J. H. Bateman, F. A. Muth, B. W. Pegues.

1023

(3) **WORRALL, ARTHUR ROLAND**, 67 First Street, Troy, N. Y. (Age 22. Born Wallingford, Pa.) 1928 C. E., Rens. Pol. Inst. TT 4: P 4. Refers to E. R. Cary, L. W. Clark, H. B. Compton, T. R. Lawson, P. C. Ricketts, W. W. Rousseau.

1024

(1) **WREDE, FREDERICK WILLIAM, Jr.**, 1024 Hudson St., Hoboken, N. J. (Age 30. Born Hoboken, N. J.) Sept. 1920 to June 1924 student, Coll. of Civ. Eng., Cornell Univ. *TT 2: P 2.* Feb. 1917 to Jan. 1919 with Arronberg, Porter & Dewitt, drilling and blasting for highway construction in New Jersey. *TT 1: SP 1.* Jan. 1919 to Sept. 1920 with Bronx Parkway Comm., in responsible charge on the Parkway constructing retaining walls, sewer system, levees, highway bridges, roads and grading. *TT 0.8: P 0.8: RC 0.8.* Sept. 1920 to June 1924 (while student) made special study of shield and compressed air tunnelling of Holland Tunnels, etc. June to Nov. 1924 with Gavin Hadden, New York City, on supervision of construction during building of Cornell Crescent (stadium) at Ithaca, N. Y. *TT 0.5: P 0.5.* Nov. 1924 to July 1925, Supt. of Constr. until March 1925 with Mathews Constr. Co., Princeton, N. J., on dormitory for Wellesly (Mass.) Coll., then with Spaulding Constr. Co., New York City, on two airports at Teterboro, N. J., and one at College Point, N. Y. *TT 0.6: P 0.6: RC 0.6.* July 1925 to March 1926 Chf. of Party, Public Service Comm. of New Jersey, on transmission lines at Kearny and Trenton, N. J., and railroads at New Brunswick, N. J. *TT 0.7: P 0.7: RC 0.7.* March 1926 to Jan. 1927 supervising construction, and April to Oct. 1927 Res. Engr. on construction, Northwestern Univ. Stadium, Evanston, Ill., for Gavin Hadden, New York City. *TT 1.3: P 1.3: RC 1.3.* Jan. to April 1927 Supt. of Constr., Barney-Ahlers Constr. Co., New York City, on flat-slab industrial building, Long Island City, for Excelsior Quilting Co. *TT 0.3: P 0.3: RC 0.3.* Oct. 1927 to date with George A. Fuller Co., on 16-story addition to Bamberger's store, Newark, N. J. *TT 0.8: P 0.8: RC 0.8.* *TT 8: SP 1: P 7: RC 4.5.* Refers to G. F. Baker, F. A. Barnes, G. Hadden, C. A. Holden, J. E. Perry, C. H. Schwertner.

1025

(2) **WURAFTIC, JOSEPH**, 35 Mulberry St., Providence, R. I. (Age 23. Born Balta, Russia.) 1927 B. S. in Civ. Engr., Univ. of Me. *TT 4: P 4.* Sept. 1927 to June 1928 graduate student in San. Eng., Harvard Univ. Summer 1925 Rodman, and summer 1927 Transitman and Inspector of sewer construction, etc. with Dept. of Public Works, Portland, Me. Summer 1926 Transitman for State of New Hampshire on campus at Univ. of New Hampshire, on supervision of surveying, laying out running track, giving lines and grade for sidewalks and sewers. June 1928 to date Asst., San. Eng. Laboratory, Rhode Island State Board of Health, Providence, on examination of water and sewage. *TT 0.1: P 0.1.* *TT 4.1: P 4.1.* Refers to G. M. Fair, H. J. Hughes, L. J. Johnson, G. F. Swain, H. M. Turner.

1026

(9) **ZWISSLER, JOHN ARTHUR**, 218 Vine St., West Lafayette, Ind. (Age 37. Born Princeton, Ind.) 1914 B. S. in C. E., Purdue Univ. *TT 4: P 4.* March 1915 to April 1916 Draftsman, Chicago, Indianapolis & Louisville R. R. *TT 0.5: SP 0.5.* May 1916 to Aug. 1919 Detailer, Illinois Steel Co., on mill buildings, some investigation of strength and condition of ore boats. *TT 3: SP 0.2: P 2.8.* Jan. 1920 to June 1922 Asst. County Engr., Gibson County, Ind., in charge of field parties on surveys, also office work on maps, plans, profiles and specifications. *TT 2.2: SP 0.2: P 2: RC 1: D 0.2.* June 1922 to March 1925 Asst. Engr. with Edwyn E. Watts, Civ. and Cons. Engr., Princeton, Ind., on city paving, ditch, drainage and levee work, plans and investigations for sewer systems and disposal works, etc.; also Civ. Engr., County Commrs., Gibson County, on surveys, maps, plans, profiles and specifications, and overseeing construction (\$60 000) of roads. *TT 2.4: SP 0.3: P 2.1: RC 1.1: D 0.3.* March 1925 to date Instructor in Hydraulics, Purdue Univ., in charge of administration of freshman course in general engineering. Summer 1927 Asst. Engr., San. Dist. of Chicago, in charge of current-meter party on Sag Channel. *TT 2.4: SP 0.2: P 2.2: RC 2.2.* *TT 14.5: SP 1.4: P 13.1: RC 4.3: D 0.5.* Refers to E. L. Eriksen, L. W. Hall, C. A. Hart, W. K. Hatt, R. B. Wiley.

FOR TRANSFER

FROM THE GRADE OF ASSOCIATE MEMBER

1027

(5) **ALLEN, HERSCHEL HEATHCOTE**, Assoc. M., 1308 Lexington Bldg., Baltimore, Md. (Elected Junior Nov. 3, 1915; Assoc. M. Nov. 9, 1920.) (Age 38. Born Gorsuch Mills, Md.) 1910 B. S. in C. E., Md. Agri. Coll. 1922 C. E., Univ. of Md. *TT 4: P 4.* June 1910 to Jan. 1913 with Baltimore County Highway Dept., 9 months as Inspector of pavements, roads, culverts and sewers, 1 year Res. Engr. on Back River Bridge, 9 months Engr. Inspector, surveys, bridges, etc. *TT 1.7: SP 0.7: P 1: RC 1.* Jan. to May 1913 Instrumentman and Draftsman, Eng. Dept., Jacksonville, Fla. *TT 0.2: SP 0.2.* May to Sept. 1913 Inspector,

State Roads Comm. of Maryland, on pavements, roads, retaining walls and concrete arch bridge. *TT 0.2: SP 0.2.* Sept. 1913 to June 1914 graduate student, Johns Hopkins Univ. and (part of time) Asst. Bridge Engr., State Roads Comm. of Maryland, on design, plans and specifications for highway bridges. Jan. 1914 to Jan. 1916 same work with same Commission, and with J. E. Greiner on Hanover St. Bridge, Baltimore (about \$1 500 000). * *TT 1.5: P 1.5: RC 1.5: D 1.5.* Jan. 1916 to Sept. 1917 Bridge Engr., State Roads Comm. of Maryland, in charge of design, plans and specifications and general supervision of construction, Ocean City, Sassafras River, and 15-Mile Creek Bridges, etc. *TT 1.7: P 1.7: RC 1.7: D 1.7.* Sept. 1917 to Jan. 1919 with U. S. Army, 3 months as 1st Lieut., then Capt., Engrs., being student and Instructor at training camp; since 1919 Major, Engr. Sec., Officers' Reserve Corps. *TT 1.3: P 1.3: RC 1.3.* Jan. 1919 to date Designing Engr. in charge of design and drafting rooms, later Associate Engr. and at present member of firm J. E. Greiner Co., Cons. Engrs., Baltimore, on design, plans and specifications for highway and railroad bridges, including reinforced concrete arches and girder spans, steel trusses, plate girders, viaducts, cantilevers, suspension, bascule and lift bridges; work includes preliminary studies, estimates, reports, preparation of contract and detail drawings and specifications, and general supervision of construction. *TT 9.5: P 9.5: RC 9.5: D 9.5.* *TT 20.1: SP 1.1: P 19: RC 15: D 12.7.* Refers to C. K. Allen, W. T. Ballard, A. E. Christhill, B. L. Crozier, G. E. Edgerton, J. E. Greiner, A. N. Johnson, W. W. Pagon, H. G. Shirley, C. J. Tilden, E. B. Whitman.

1028

(1) **ANDERSON, JOHN DAVID**, Assoc. M., 1082 Prospect Pl., Brooklyn, N. Y. (Elected Jan. 16, 1922.) (Age 39. Born Brooklyn, N. Y.) 1910 C. E., Cornell Univ. *TT 4: P 4.* Summer 1907 Transitman on city survey for Austin Ludlum, Brooklyn, N. Y. Summer 1909 Foreman, Moyer Eng. & Constr. Co., on construction of 13-story reinforced concrete manufacturing building, Brooklyn, N. Y. July 1910 to Nov. 1911 Structural Steel Detailer and Designer, American Bridge Co., Brooklyn. *TT 1.4: P 1.4: D 0.4.* Nov. 1911 to March 1916 with Elec. Bond & Share Co., New York City, on design and supervision of construction of hydro-electric developments, 3 years as Asst. to Hydr. Engr. *TT 4.4: P 4.4: RC 3: D 4.4.* March 1916 to Aug. 1918 Engr., Ulster Iron Works, Dover, N. J., on design and construction of additions to plant and of new puddling and rolling mill. *TT 2.5: P 2.5: RC 2.5: D 2.5.* Aug. 1918 to Dec. 1919 Engr., T. W. Price Eng. Co., New York City, on design and supervision of construction of steel plants and rolling mills, including design of new plant (tool steels, 2 500 tons per month). *TT 1.3: P 1.3: RC 1.3: D 1.3.* Dec. 1919 to date Engr., with Dwight P. Robinson & Co., Inc., New York City, 1 year as New Business Representative covering Pennsylvania and adjoining states, 1 year Asst. to Executive Vice-Pres. in Charge of Eng. Dept., and remainder of time Superv. Engr. in charge of design and supervision of industrial and boiler plants, investigations, reports, etc. *TT 8.5: P 8.5: RC 6.5: D 6.5.* *TT 22.1: P 22.1: RC 13.3: D 15.1.* Refers to F. A. Barnes, W. E. Belcher, A. C. Clogher, J. H. Edwards, G. R. Goethals, E. J. Moore, H. O. Pond.

1029

(1) **BEER, FREDERICK MAX**, Assoc. M., 107-30 One Hundred and Twenty-Fifth St., Richmond Hill, N. Y. (Elected June 16, 1919.) (Age 43. Born Brooklyn, N. Y.) Prof. Engr., N. Y. State. 1905-1912 student, Civ. Eng. course, International Correspondence Schools, Scranton, Pa. Nov. 1906 to Dec. 1908 Rodman, Eng. Dept., Rapid Transit R. R. Comm., New York City, on instrument work, inspection of construction, drafting, etc. *TT 1: SP 1.* Dec. 1908 to April 1909 Jun. Bridge Draftsman, Bridge Dept., New York State Engr.'s office. *TT 0.3: SP 0.3.* April 1909 to March 1910 Eng. Inspector, Board of Water Supply, New York City, on concrete aqueduct construction, supervision of construction of earth and rock tunnels. *TT 0.5: SP 0.5.* March to Sept. 1910 Eng. Draftsman, Public Service Comm., First Dist., Design Dept., on plans of steel and concrete subways. *TT 0.2: SP 0.2.* Sept. 1910 to May 1913 Civ. Engr., Bradley Contr. Co., New York City, in charge of office routine, design and supervision of installation of structures, hoisting and transporting equipment, buildings, mechanical equipment, street surface and elevated railroad support and maintenance during construction, underpinning of buildings. *TT 2.7: P 2.7: RC 2.7: D 1.* May 1913 to May 1918 Civ. Engr., being member of firm, Walton & Beer, later Walton, Beer & Hogan, in responsible charge of the civil engineering; firm being Cons. and Directing Engrs., Routes 19-22, Lexington Ave. Subway, 138th St.-Whitlock Ave., Bronx, and Cons. Engrs., Route 5, Lexington Ave. Subway, subsurface structure restoration; Cons. and Managing Engrs., 51st St. sewer, Corona, N. Y., open cut and cast-iron lined tunnels; also on design and plans for electric-steam-gas producer power plants, installation, and estimates for construction contracts. *TT 5: P 5: RC 5: D 2.* May to Sept. 1918 Civ. Engr., Quantity Survey Co., New York City, on estimates and schedules for U. S. Emergency Fleet Corporation. *TT 0.4: P 0.4: RC 0.4.* Sept. 1918 to March 1919 Civ. Engr., Tank Shipbuilding Co., New York City, on

design and plans of cargo-handling equipment for oil-carrying steamships, miscellaneous mechanical design. *TT 0.3: P 0.3: RC 0.3: D 0.3.* March 1919 to date in private practice as Civ. Engr., Brooklyn, N. Y., being Cons. Engr. on preparation of data, expert testimony on Route 5, Secs. 6, 8, 10 and 11, Lexington Ave. Subway (Bradley Contr. Co. vs. City of New York); Superv. Engr. on several large construction contracts, on construction of several large apartment houses and apartment hotels, and on construction of 1800-seat theatre; structural steel design for architects, steel fabricators and manufacturers of industrial buildings; design of a reinforced concrete factory building, wharf design and checking designs of equipment for building material concern; associated with other consulting engineers on preparation of contractors' bid estimates for following contracts, also independent estimates: Fulton-Jay St. (\$22 000 000) and Fifty-third St. (\$10 000 000) Tunnels under East River; Nassau St. subway sections (\$10 000 000); Nott-Jackson Ave. Subway, Sec. B, Queens (\$6 000 000); St. Nicholas Ave.-Harlem River tunnels (\$8 000 000); miscellaneous engineering investigations and reports. *TT 9.3: P 9.3: RC 9.3: D 3. TT 19.7: SP 2: P 17.7: RC 17.7: D 6.6.* Refers to D. G. Edwards, G. G. Honness, J. D. C. Mackey, F. C. Noble, J. F. Perrine, L. R. Shellenberger, F. Wilcock.

1030

(14) BUCK, WALTER VAN, Assoc. M., 2219 Huntoon St., Topeka, Kans. (Elected Junior July 9, 1912; Assoc. M., Nov. 28, 1916.) (Age 39. Born Oskaloosa, Kans.) 1911 B. S. in C. E., and 1916 C. E., Kans. State Agr. Coll. *TT 4: P 4.* June 1911 to May 1912 Asst. City Engr., Manhattan, Kans. *TT 0.5: SP 0.5.* May 1912 to May 1915 City Engr., Junction City, Kans. *TT 3: P 3: RC 3: D 3.* May 1915 to May 1917 Supt. of Constr., A. Jalcks Co., on city street paving. *TT 2: P 2: RC 2.* May 1917 to June 1919 Capt., Engrs., U. S. Army. *TT 2.2: P 2.2: RC 2.2.* Jan. 1923 to April 1925 private enterprises. June 1919 to Jan. 1923 Asst. State Highway Engr., and April 1925 to date State Highway Engr., Kansas Highway Comm. *TT 6.8: P 6.8: RC 6.8: D 6.8. TT 18.5: SP 0.5: P 18: RC 14: D 9.8.* Refers to G. J. Bell, P. L. Brockway, L. E. Conrad, F. W. Epps, A. B. Griggs, R. H. Pennartz.

1031

(1) CAMPBELL, JAMES KENNETH, Assoc. M., 110 West Fortieth St., New York City. (Elected June 1, 1920.) (Age 38. Born Kansas City, Mo.) 1911 S. B., Mass. Inst. Tech. *TT 4: P 4.* June to Dec. 1911 Computer, railroad valuation, Bureau of Eng. Statistics. *TT 0.3: SP 0.3.* Jan. to May 1912 Asst. Engr., Lehigh Valley R. R., in charge of district field office (under Dist. Valuation Engr.) *TT 0.4: P 0.4: RC 0.4.* June 1912 to Oct. 1914 Associate Engr. with Percival Robert Moses, E. E., Cons. Engr., on design and supervision of installation of power plants and mechanical and electrical equipment of buildings. *TT 2.3: P 2.3: RC 2.3: D 2.* Oct. 1914 to date member of firm, Eadie, Freund & Campbell, Cons. Engrs., New York City, on design and supervision of installation of power plants and mechanical and electrical equipment of buildings and industrial plants, including boiler plants, fuel- and ash-handling and electric-generating equipment, wiring for light and power, illumination, heating and ventilating, air conditioning, industrial heating and drying and design of industrial processes, elevators and conveyors, refrigeration, plumbing and water supply, automatic sprinkler systems, etc., also making tests and reports on engineering matters, testimony in litigation and serving on boards of arbitration. *TT 13.6: P 13.6: RC 13.6: D 13.6. TT 20.6: SP 0.3: P 20.3: RC 16.3: D 15.6.* Refers to J. G. Ahlers, E. T. Almy, Jr., W. J. Barney, H. C. Bender, A. Brociner, R. H. Chambers, H. Goldmark, R. H. Gould, E. S. Jarrett, C. M. Spofford.

1032

(1) CLAUSNITZER, JOHN, Assoc. M., 215 Montague St., Brooklyn, N. Y. (Elected Junior March 3, 1903; Assoc. M. April 18, 1916.) (Age 44. Born New York City.) Licensed Engr., New York State. 1901 B. S., Cooper Union, 1902 C. E., Brooklyn Pol. Inst. *TT 4: P 4.* Sept. 1902 to Sept. 1906 with Dept. of Public Works, until Dec. 1905 as Engr. Inspector and later Transitman, Bureau of Highways, Brooklyn, N. Y., on highway construction, also in charge of force repaving openings in asphalted streets, and after Dec. 1905 Asst. Engr., Bronx Borough, on street paving, sidewalks, bridges, steps, approaches, etc. *TT 1.9: SP 1.1: P 0.8.* Sept. 1906 to Oct. 1907 Structural Steel Draftsman and Designer, Bldg. Bureau, Board of Education, Manhattan Borough, New York City. *TT 1.1: P 1.1: D 1.1.* Oct. 1907 to Oct. 1908 Instructor in mechanical drawing and design, Cooper Union. *TT 1: P 1: RC 1.* Oct. 1908 to March 1909 in private practice of engineering and architecture, drawing plans and supervising construction of building work. *TT 0.4: P 0.4: RC 0.4: D 0.4.* March 1909 to Oct. 1916 with Bldg. Dept., Brooklyn, until Jan. 1913 as Inspector examining plans and specifications and inspecting construction of elevators and amusement devices, then Plan Examiner, examining plans and specifications for all classes of buildings and structures; also (summer 1907) Instructor in surveying, and (1906 to 1914) (evenings) in Mathematics, Cooper Union. *TT 6.1: SP 0.5: P 5.6: RC 2.8.* Oct. 1916 to date Chf.

Engr., William Kennedy Constr. Co., Bldrs. and Contrs., on office buildings, banks, hotels, apartments, hospitals, schools, churches, clubs, industrial plants, etc. (approx. \$7 000 000 annually) in charge of estimating, letting of subcontracts, laying out program and schedules general supervision of jobs, etc., designs of foundation, structural and reinforced concrete work, consulting. *TT 11.8: P 11.8: RC 11.8: D 11.8. TT 26.3: SP 1.6: P 24.7: RC 16: D 13.3.* Refers to G. Berry, J. C. Meem, C. D. Pollock, J. C. Riedel, F. F. Trierweller, R. J. Warne, L. White.

1033

(10) CONNOLLY, DONALD HILARY, Assoc. M., 1006 McCall Bldg., Memphis, Tenn. (Elected Junior April 7, 1915; Assoc. M. Oct. 8, 1918.) (Age 42. Born Mojave, Ariz.) 1910 2d Lieut., Corps of Engrs., U. S. Mil. Acad. 1912 graduate, Army Engr. School of Application. 1923 Distinguished Graduate, Command and Gen. Staff School. *TT 4: P 4.* Sept. 1910 to Sept. 1922 with U. S. Army, as follows: Sept. 1910–Aug. 1911 on various engineering work with Corps of Engrs.; Oct.–Nov. 1912 and March 1913–July 1914 with engineer troops at Ft. Leavenworth, and Texas City, Tex., on mapping, small bridges, roads, etc.; Dec. 1912 to March 1913 and Aug. to Nov. 1914 mapping Ft. Sill, Okla., etc.; Nov. 1914–Dec. 1915 Asst. Dept. Engr. and (part of time) Acting Dept. Engr., Southern Dept.; Jan. 1916 to June 1918 training engineer troops; June to Oct. 1918 at Langres and 1st Army headquarters, France; after Oct. 1918 with War Dept. General Staff, Washington, D. C. *TT 10.7: SP 0.5: P 10.2: RC 8.4: D 2.8.* June 1923 to date Dist. Engr., First and Second Dist. (445 miles), Mississippi River Comm. on flood control work (\$3 500 000 to \$4 000 000 annually), and Memphis River and Harbor Engr. Dist. on maintenance and theoretical work for flood-control plans for western tributaries and reports to Federal Power Comm. *TT 5: P 5: RC 5: D 5. TT 19.7: SP 0.5: P 19.2: RC 13.4: D 8.8.* Refers to R. L. Paris, E. Flad, C. W. Kutz, C. L. Potter, E. H. Schulz, C. H. West.

1034

(8) CONSOER, GEORGE OTTO, Assoc. M., 1700 Eng. Bldg., Chicago, Ill. (Elected July 12, 1926.) (Age 34. Born Chicago, Ill.) 1917 B. S. in Civ. Eng., Univ. of Ill. *TT 4: P 4.* Summers 1914–1916 Inspector and Instrumentman, Village of Oak Park, Ill. May 1917 to Oct. 1918 2d Lieut., Heavy Artillery Reserve Corps, and Oct. 1918 to Nov. 1919 1st Lieut., Engr. Corps, Regulars, U. S. Army. *TT 2.5: P 2.5.* Dec. 1919 to Aug. 1922 Asst. Engr., Illinois State Highway Dept., on bridge and road design and construction. *TT 2.7: P 2.7: D 1.* Aug. 1922 to date Secy. and Chf. Designing Engr. with Consoer, Older & Quinlan, Chicago, Ill. *TT 6: P 6: RC 6: D 6. TT 15.2: P 15.2: RC 6: D 7.* Refers to E. A. Clark, A. W. Consoer, W. Harwood, C. Older, G. A. Quinlan.

1035

(6) COOK, HOLTON, Assoc. M., 524 Twelfth St., Huntington, W. Va. (Elected Junior Aug. 31, 1915; Assoc. M. Oct. 10, 1921.) (Age 39. Born Murray, Ky.) 1909 B. C. E., Ky. State Univ. *TT 4: P 4.* Sept. 1909 to July 1910 Jun. Inspector, Louisville (Ky.) Sewer Comm., on concrete, reinforced concrete and pipe sewer and concrete retaining wall construction. *TT 0.4: SP 0.4.* July to Aug. 1910 Engr. for Contr. on construction of Sneed Bldg. (reinforced concrete), Louisville, laying out work, checking forms, steelwork, etc. *TT 0.2: P 0.2: RC 0.2.* Aug. to Sept. 1910 Levelman and Topographer on survey for proposed railway. *TT 0.1: P 0.1: RC 0.1.* May to Oct. 1912 Asst. on Engr. Corps, Vandalia R. R., Logansport, Ind., maintenance, field and office. *TT 0.2: SP 0.2.* Oct. 1910 to Jan. 1916 (except May to Oct. 1912) with U. S. Engr. Office, Louisville, one year as Draftsman and Computer on survey of Ohio River and plans for Lock 41; Oct. 1912 to 1914 Draftsman and Checker on mapping of Ohio River; 1914 Inspector and Res. Engr. on concrete reconstruction, Lock 5, Green River, Ky., and made surveys, plans and estimates for other reconstruction, and 1915 Supt. and Res. Engr. in charge of re-building dam, etc., Lock 1, Barren River, Ky. *TT 3.7: SP 0.5: P 3.2: RC 1.3: D 0.2.* Feb. 1916 to May 1917 with Knoxville Power Co., Alcoa, Tenn., as Draftsman on layout and construction work; later Asst. Res. Engr. in charge of construction of Town of Alcoa, buildings, houses, sewer and water-supply systems, railroad yards and crushing plant. *TT 1.2: P 1.2: RC 1.2.* May 1917 to Oct. 1919 with Fargo Eng. Co., Jackson, Mich., as Res. Engr. in charge of surveys of damsites on Au Sable River and of construction of Foote Development, a 10 000-kw. hydro-electric power station; field and office work on surveys, reports and plans for power and hydraulic projects. *TT 2.4: P 2.4: RC 2: D 0.3.* Oct. 1919 to March 1921 private work, on surveys and layouts, and design, construction and operation of small concrete products plant at Morgantown, Ky. *TT 1.5: P 1.5: RC 1.5: D 0.5.* March 1921 to April 1923 with Kentucky Highway Dept., Frankfort, Ky., as Res. Engr. in charge of construction and relocation of Federal Aid roads (4 projects), and Asst. Div. Engr. at Ashland, Ky., on relocation, construction and maintenance of state roads and bridges. *TT 2: P 2: RC 2.* April 1923 to June 1924 County Road Engr., County Court of Mingo County, Williamson,

W. Va., in general charge of location, design, construction and maintenance of county road system (road and bridge program about \$2 000 000). *TT 1.2: P 1.2: RC 1.2: D 1.2.* June 1924 to date in private practice at Huntington, W. Va., checking estimates of contractors on road and bridge work, inspecting proposed work, preparing bids, and advising construction layouts and equipment; design of bridges for counties; 1925 in charge of design and construction of concrete, brick and sheet asphalt streets in new subdivision, Huntington, etc. *TT 4.1: P 4.1: RC 4.1: D 1.3. TT 21: SP 1.1: P 19.9: RC 13.6: D 3.5.* Refers to W. G. Fargo, C. P. Fortney, J. T. Madison, M. E. S. Posey, H. J. Spelman, W. W. Tefft, D. V. Terrell.

1036

(1) **CROWN, VICTOR MAX**, Assoc. M., Care, Ulen & Co., Athens, Greece. (Elected Junior Aug. 9, 1920; Assoc. M. May 8, 1922.) (Age 35. Born Chicago, Ill.) 1918 B. S. in C. E., and 1923 M. S. in C. E., Armour Inst. Tech. *TT 4: P 4.* June to Sept. 1910 Draftsman and Detailer, Kellogg Switchboard Co., Chicago, Ill., on automatic telephone and switchboard parts. *TT 0.2: SP 0.2.* Sept. 1910 to Sept. 1911 Switchboard Installer, Chicago Telephone Co., on switchboard, cable and transmission-line installation. *TT 0.5: SP 0.5.* Summer 1912 Structural Designer and Draftsman with N. Ronneberg, Cons. Engr., Chicago, on office buildings, factories and bridges. Summer 1913 Structural Steel Designer with Holabird & Roche, Archts., Chicago, on Edison Co. Northwest Station work. *TT 0.2: SP 0.2: D 0.2.* Sept. 1913 to Sept. 1915 Principal and Instructor, Arroyo (Porto Rico) High School. *TT 1: SP 1.* Summer 1916 Leveler and Transmitter, Chicago & North Western R. R. Summer 1917 Designing Engr., Griffin Wheel Co., Chicago, on car wheels, pattern, foundry and machine-shop machinery. April to Nov. 1918 Designing Engr., Amalgamated Machinery Corporation, Chicago, on 14, 16 and 18-in. shell-turning and gun-boring machinery. *TT 0.6: P 0.6: RC 0.6: D 0.6.* Nov. 1918 to date with Ulen & Co., New York City, as Designer and Estimator on water-supply system for towns of Norfolk, Portsmouth, Berkeley and Suffolk, Va.; Job Engr. during construction of sewer system for La Paz, Bolivia (\$2 000 000); on preliminary surveys and studies for sewer systems at Cruro and Potosi, Bolivia; Res. Engr. at Tupiza, Bolivia, during construction of Atocha-Villazon R. R. (\$12 000 000); Job Engr. during construction of filter plants, water supply, sewer, power plant, street railway and lighting for Maranhao, Brazil (\$1 000 000); and of municipal improvements for Bogota, Colombia (\$2 000 000); Cost and Progress Engr. during construction of dam, tunnel and new water-supply system for Athens, Greece. *TT 9.7: P 9.7: RC 9.7: D 6.8. TT 16.1: SP 1.8: P 14.3: RC 10.3: D 7.6.* Refers to P. C. Campbell, T. Dickinson, R. W. Gausmann, R. H. Keays, R. M. Merriman, T. S. Shepperd.

1037

(14) **DICKE, EDWARD CHRISTIAN**, Assoc. M., 502 Merchants Laclede Bldg., St. Louis, Mo. (Elected Junior May 5, 1904; Assoc. M. April 6, 1909.) (Age 50. Born St. Louis, Mo.) 1900 B. S. in Civ. Eng., Washington Univ. *TT 4: P 4.* June to Aug. 1900 with J. L. Van Ornum on topographical survey of New Washington Univ. grounds. *TT 0.1: SP 0.1.* Aug. 1900 to Feb. 1902 Asst. Engr. to Brenneke & Fay, Cons. Engrs., St. Louis, Mo., superintended erection of steel factory buildings, designed railway structures, etc. *TT 1.5: P 1.5: D 0.2.* Feb. to Oct. 1902 Rodman, Res. Engr. and finally Office Engr., Arkansas & Choctaw Ry. (Frisco System). *TT 0.7: P 0.7: RC 0.7.* Dec. 1902 to Sept. 1905 Office Engr., Terminal R. R. Association of St. Louis, designed freight and passenger yards, subways, coaling stations, etc. *TT 2.7: P 2.7: D 2.7.* Sept. 1905 to Nov. 1906 Asst. Engr., Bridge & Bldg. Dept., Missouri Pacific System, designed steel bridges, viaducts, draw spans, concrete structures, etc. *TT 1.2: P 1.2: D 1.2.* Nov. 1906 to July 1908 Prin. Asst. Engr., Memphis R. R. Terminal Co., designed reinforced concrete train shed (800 by 300 ft.), retaining walls, abutments, overhead crossings, subways, track layouts, sewer systems, etc. *TT 1.7: P 1.7: D 1.7.* July 1908 to date Engr. and Secy., Fruin-Colnon Contr. Co. of St. Louis, designing steel and reinforced concrete structures, planning methods of constructing and erecting work, estimating cost, etc., on intake tower and tunnel for St. Louis Water Dept., pneumatic caisson foundations for Hotel Statler, foundations for Civil Courts Bldg., viaducts, etc., industrial plants, sewer work, reinforced concrete bridges, etc. (names given in application). *TT 20: P 20: RC 20: D 10. TT 32: SP 0.1: P 31.9: RC 20.7: D 15.9.* Refers to L. R. Bowen, S. W. Bowen, B. L. Brown, C. Gayler, A. P. Greensfelder, E. E. Wall.

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(1) **DOYEN, GEORGE EVELYN**, Assoc. M., 21 Alden Rd., Larchmont, N. Y. (Elected July 2, 1913.) (Age 43. Born Quincy, Ill.) 1907 S. B., Lawrence Sci. School, and 1908 M. C. E. Harvard Univ. *TT 4: P 4.* Summer 1907 Foreman, and 1908 to 1910 Foreman and Supt., on construction, Hastings Pavement Co., New York City. *TT 2.2: P 2.2: RC 1.9.* Sept. 1907 to June 1908 graduate student, Harvard Univ. 1910 to 1921 with Turner Constr. Co.,

New York City, until 1913 as Constr. Engr. and (later) Asst. Supt. on reinforced concrete structures, including Arbuckle Bldg., Brooklyn, Bush Terminals, Nos. 7, 8 and 20, and three smaller buildings; after 1913 Asst. Engr. on design, specifications and supervision of drafting for reinforced concrete structures, including factories for Loose Wiles Biscuit Co., Long Island City, and Robert Gare Co., Brooklyn, N. Y., Naumkeag Steam Cotton mills, Salem, Mass., Merchant Refrigerating Co. warehouse, New York City, U. S. Aluminum Co.'s, Edgewater factory extension, etc. *TT 11: P 11: RC 10: D 8.* 1921 to 1922 experimental work on steam automotive apparatus, designing and building steam-driven bus chassis. *TT 1.1: P 1.1: RC 1.1: D 1.1.* 1922 to 1923 Engr., O'Rourke Crane & Eng. Co., in charge of field erection equipment and expediting material on several schools and other structural steel projects. *TT 1: P 1: RC 1.* 1923 to date Structural Engr., until 1925 for McKenzie, Voorhees & Gmelin, Archts., on design of telephone buildings and cable plant for Western Elec. Co., and since 1925 for Dwight P. Robinson & Co., Inc., New York City, supervising design, drafting, writing specifications, obtaining bids and general contact with field, clients, contractors and subcontractors on office and news-paper buildings, industrial plants, power houses, etc. *TT 4.9: P 4.9: RC 4.9: D 4.9.* *TT 24.2: P 24.2: RC 18.9: D 14.* Refers to R. A. Backus, L. J. Johnson, R. A. Marshall, E. J. Moore, H. C. Paddock, H. C. Turner, E. L. Verveer.

1039

(1) **FINCH, JAMES KIP**, Assoc. M., 39 Claremont Ave., New York City. (Elected Junior June 4, 1907; Assoc. M., Nov. 3, 1915.) (Age 44. Born Peekskill, N. Y.) 1906 C. E., and 1911 A. M., Columbia Univ. *TT 4: P 4.* Sept. 1906 to Jan. 1907 Asst. Engr., Tompkins Eng. Constr. Co., on timber pier and foundation work, quantities, surveying, etc. *TT 0.3: P 0.3: D 0.3.* Jan. to July 1907 Instructor in Civ. Eng., Lafayette Coll., Easton, Pa. *TT 0.5: P 0.5: RC 0.5.* Sept. 1907 to June 1908 Asst. Engr., J. B. Snooks Sons, Archts., New York City, on inspection and design. *TT 0.7: P 0.7: RC 0.3: D 0.4.* Sept. 1908 to March 1909 Engr. with D. J. Ryan, Contr., Brooklyn, N. Y., on cost accounts and superintendence of construction of several large buildings, etc. *TT 0.5: P 0.5: RC 0.4: D 0.1.* March 1909 to Feb. 1910 Engr. with List & Rose, Bldg. Contrs., New York City, on erection of two 12-story loft buildings, estimates, etc. *TT 0.9: P 0.9: RC 0.6: D 0.3.* Feb. to Sept. 1910 partner on irrigated ranch in Montana, construction of irrigation ditches, etc. *TT 0.6: P 0.6.* Summers 1906-1908 and Sept. 1910 to date with Dept. of Civ. Eng., Columbia Univ., from Sept. 1910 to June 1915 as Instructor, July 1915 to June 1917 Asst. Prof., June 1917 to June 1927 Associate Prof., and since July 1927 Prof. of Civ. Eng.; Summer School of Surveying as Instructor (1906-1908), Instructor in Chg. (1911 to 1913), Res. Director (1914-1919) and Director (1920 to date). Since 1910 also Lecturer in Extension Teaching. *TT 18.7: P 18.7: RC 13.* *TT 26.2: P 26.2: RC 14.8: D 1.1.* Refers to A. H. Beyer, W. Bowle, W. H. Burr, D. E. Moran, E. deV. Tompkins.

1040

(10) **FORESTER, DON MONTELL**, Assoc. M., P. O. Box 155, Jackson, Miss. (Elected March 15, 1926.) (Age 37. Born Belleaire, Ill.) 1914 B. S. in C. E., Ga. School Tech. *TT 4: P 4.* July to Dec. 1914 and Aug. 1916 to May 1917 Jun. Engr., Illinois Highway Dept., on pavement construction and (after Aug. 1916) bridge design and construction. *TT 1.3: P 1.3: RC 1.3.* Jan. to Nov. 1915 Asst. Engr., Cuyamel (Honduras) Fruit Co., railway and drainage location and construction. *TT 0.9: P 0.9: RC 0.5.* Nov. 1915 to Aug. 1916 Jun. Engr., Interstate Commerce Comm., field valuation of common carrier property. *TT 0.7: P 0.7.* May 1917 to July 1919 2d Lieut., 1st Lieut. and Capt., Engrs., U. S. Army, military engineering. *TT 2.2: P 2.2: RC 2.2.* July 1919 to March 1922 on location, design and construction of highways, drainage, etc., in northwest Mississippi. *TT 2.7: P 2.7: RC 2.7: D 2.7.* March 1922 to May 1926 City Engr., Belzoni, Miss., in charge of engineering, including design and construction of power plant, water-works, pavements, sewers, etc. *TT 4.2: P 4.2: RC 4.2: D 4.2.* May 1926 to Jan. 1928 Constr. Engr., Hinds County, Miss., highway location and construction. *TT 1.6: P 1.6: RC 1.6.* Jan. 1928 to date Associate Engr. with W. B. Montgomery & Associates, Civ. Engrs., on design and construction of pavements, sewers, water-works, power plants, etc. *TT 0.4: P 0.4: RC 0.4: D 0.4.* *TT 18: P 18: RC 12.9: D 7.3.* Refers to R. L. Bell, H. B. Bushnell, E. H. Coleman, M. Garsaud, L. W. Mashburn, W. H. Rhodes, J. R. Slattery, R. S. Thomas, R. L. Totten.

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(14) **GREER, CLINTON MERRITT**, Assoc. M., 1012 Baltimore Ave., Kansas City, Mo. (Elected Oct. 2, 1922.) (Age 36. Born Powersville, Mo.) 1916 B. S. in C. E. and 1922 C. E., State Univ. of Iowa. *TT 4: P 4.* June 1916 to March 1917 Asst. Field Supt. with W. D. Lovell, Minneapolis, Minn., on construction of heating plant and sewerage system. *TT 0.4: SP 0.4.* March 1917 to April 1920 Designer, Bridge Dept., Northern Pacific Ry., St. Paul, Minn., 1 year tracing, etc., then designing, detailing and estimating. *TT 2.6: SP 0.5: P 2.1:*

D 2.1. April 1920 to Dec. 1922 Bridge Designer, St. Louis County, Minn., in charge of designing and detailing steel and concrete highway bridges. *TT 2.7: P 2.7: RC 2.7: D 2.7.* Dec. 1922 to date with Harrington, Howard & Ash, Kansas City, Mo., as Designing Engr. on steel and concrete and movable bridges, investigations and reports. *TT 5.5: P 5.5: RC 5.5: D 5.5.* *TT 15.2: SP 0.9: P 14.3: RC 8.2: D 10.3.* Refers to L. R. Ash, M. F. Clements, F. M. Cortelyou, C. S. Harper, J. L. Harrington, E. E. Howard, J. I. Quinn.

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(2) HALL, WILFRED MCGREGOR, Assoc. M., P. O. Drawer 160, New Milford, Conn. (Elected June 16, 1924.) (Age 34. Born Denver, Colo.) 1916 B. S. in C. E., Univ. of Colo. *TT 4: P 4.* May 1916 to Jan. 1918 and Feb. 1920 to Sept. 1922 with Chas. T. Main, Engr., Boston, Mass., until Jan. 1918 as Asst. Engr. on layout and inspection of hydro-electric development, from Feb. to May 1920 Res. Engr. supervising textile-mill construction, and after May 1920 Engr. on surveys, estimates and design of hydro-electric development, Belgian Congo, Africa. *TT 4.3: P 4.3: RC 3.4: D 1.4.* Jan. to March 1918 Supt. of Constr., U. S. Indian Irrigation Service, Albuquerque, N. Mex., on construction of jetties, irrigation investigation. *TT 0.3: P 0.3: RC 0.3.* March to Dec. 1918 Private, Corporal and 2d Lieut., U. S. Army, Heavy Artillery Corps. Jan. 1919 to Feb. 1920 Asst. Engr. on layout, inspection and construction hydro-electric development and Sept. 1922 to Oct. 1923 Engr. on surveys, stream flows, foundation borings, test pits, designs, estimates and report for hydro-electric development on Housatonic River, Conn., for J. A. P. Crisfield Contr. Co., Philadelphia, Pa. *TT 2.2: P 2.2: RC 2.2: D 0.7.* Oct. 1923 to date with The U. G. I. Contr. Co., Philadelphia, as follows: Oct. 1923 to April 1924 Erecting Engr. on surveys, borings for foundations, investigations for concrete and earth dam materials, stream-flow studies, designs, estimates and report, Garoga Creek, N. Y.; April 1924 to Nov. 1925 Contr.'s Engr. preparing bids, chiefly hydro-electric development, including earth dam and power-house construction in New York State; Nov. 1925 to May 1926 Erecting Engr. on borings for foundations, surveys, estimates and preparation of bids for proposed hydro-electric development, Housatonic River, Conn.; since May 1926 Engr. and Mgr. of hydro-electric development, including construction of earth dams, structure, road relocation, reservoir clearing, supervision of electrical and other construction and investigations for proposed sites on Housatonic River. *TT 4.9: P 4.9: RC 4.9: D 1.1.* *TT 15.7: P 15.7: RC 10.8: D 3.2.* Refers to I. C. Crawford, P. L. Heslop, J. D. Justin, M. S. Ketchum, F. E. Lamphere, C. H. Locher, W. F. Uhl.

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(4) HAUSER, LEON AARON, Assoc. M., 902 Overbrook Arms Apartments, Philadelphia, Pa. (Elected Jan. 17, 1927.) (Age 34. Born Newark, N. J.) 1918 B. S. in C. E., George Washington Univ. *TT 4: P 4.* 1918 to 1919 Lieut., Engr. Corps, U. S. Army. *TT 0.7: P 0.7: RC 0.7.* 1919 to 1920 Asst. Engr., New York & New Jersey Bridge & Tunnel Comm., on design and estimates of Hudson River Vehicular Tunnel. *TT 0.3: P 0.3: D 0.3.* 1920 to 1922 Asst. Engr., American Sugar Refinery Co., on design and construction of refinery at Baltimore, Md. *TT 2: P 2: D 1.* 1922 to March 1928 Res. Engr., Baltimore & Ohio R. R. Co., until 1925 in charge of construction of grain elevator (\$6 000 000) at Baltimore, then of perishable products terminal (\$3 000 000) at Philadelphia, Pa. *TT 5.7: P 5.7: RC 5.7.* March 1928 to date Bldg. Contr., on erection of 11-story cold storage warehouse for Quaker City Cold Storage Co., Philadelphia, Vice-Pres., Arey-Hauser Co., Engrs. and Constructors, Philadelphia. *TT 0.3: P 0.2: RC 0.2.* *TT 12.9: P 12.9: RC 6.6: D 1.3.* Refers to E. J. Dougherty, F. S. Harvey, W. R. Hughes, Jr., F. E. Lamphere, H. A. Lane, M. A. Long, R. Mather.

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(12) HAYDEN, BEAUFORD EMMETT, Assoc. M., Vale, Ore. (Elected Dec. 6, 1915.) (Age 52. Born Hicks City, Mo.) 1900 B. S., Univ. of Okla. *TT 4: P 4.* June 1903 to date with Bureau of Reclamation, U. S. Reclamation Service, until April, 1905, on planetable work, surveys, some location, engineering computations and drainage operations (April 1905–April 1906) in charge of topographic surveys and beginning of construction of 13 miles of main canal, North Platte project, Nebr. Jan. 1907–Aug. 1914 on Klamath (Ore.) project, until Jan. 1912 in charge of field work, operation and maintenance of canals, then in charge of operation and maintenance of canal system; Sept. and Oct. 1914 in charge of operation and maintenance, Truckee-Carson project, Nev.; Nov. 1914–Jan. 1924 Project Mgr., in responsible charge of Belle Fourche project, S. Dak., supervising design, construction, operation and maintenance of engineering works for 60 000 acres; since Feb. 1924 Reclamation Economist; work has included reports on economic feasibility of Kittitas and Columbia Basin projects in Washington, classification of irrigable lands of Vale and Owyhee projects in Oregon and Fayette Div. of Boise Project in Idaho, and supervisory charge of classification of irrigable lands of Strawberry Valley project, Utah, Grand Valley and Uncompahgre

projects, Colo., and North Platte and Belle Fourche projects. *TT 20.6: SP 4: P 16.6: RC 16.6: D 16.6.* *TT 24.6: SP 4: P 20.6: RC 16.6: D 16.6.* Refers to D. W. Cole, A. P. Davis, D. W. Murphy, W. W. Patch, P. J. Preston, F. Towle, A. Weiss, C. P. Williams.

1045

(1) **HUMAN, THEODORE, Jr.**, Assoc. M., P. O. Box 135, West Englewood, N. J. (Elected Jan. 14, 1918.) (Age 42. Born Boston, Mass.) 1902 Hudson River Mil. Acad., Nyack, N. Y. 1902 to 1905 with Constr. Corps, Pittsburgh Coal Co., and private firms, in coal fields, also erecting water-softening plants along line of Louisville & Nashville Ry. in South Dakota, Iowa and Illinois. *TT 1.5: SP 1.5.* 1906 to 1909 Location and Constr. Engr., Fajardo Sugar Co., Puerto Rico. *TT 2.4: SP 0.5: P 1.9: RC 0.8: D 1.8.* 1909 to 1910 Topographer, Madeira Mamore Ry., Brazil. *TT 1.2: P 1.2.* 1911 to 1913 Engr., Dauphin Island Ry. & Harbor Co., Ala., harbor and railway development. *TT 2.5: P 2.5: RC 2.5: D 2.5.* Nov. 1913 to July 1914 with Div. of Substructures, Borough of Queens, on underground survey. *TT 0.7: P 0.7.* Aug. 1914 to June 1915 erecting furnaces and experimenting at Naval Acad. Junction, Md., extraction of potash from rocks. *TT 0.9: P 0.9: RC 0.9: D 0.9.* Nov. 1915 to Feb. 1916 in charge of residency, New York Connecting Ry. *TT 0.3: P 0.3.* Feb. 1916 to June 1918 with Atlantic Fruit Co., Cuba, in charge of plantation surveys, railway construction and location and channel construction. *TT 2.3: P 2.3: RC 2.3: D 2.3.* Aug. 1918 to April 1919 Asst. Engr., U. S. Housing Corporation, Project 157, New London, Conn. *TT 0.7: P 0.7.* April to Nov. 1919 Engr. (Civ.) with expedition for economic survey of disputed zone, Guatemala-Honduras Boundary Line (Mediation Comm.), under American Geographic Society of New York. *TT 0.6: P 0.6.* Nov. 1919 to Aug. 1921 with Atlantic Gulf Oil Corporation in Mexican oil fields on general refinery work, including construction topping plants and Chf. Engr. on design work on Paris to Havre pipe line. *TT 1.7: P 1.7: RC 1.7: D 1.7.* Aug. 1921 to Jan. 1927 Town Engr., Teaneck, N. J. *TT 5.5: P 5.5: RC 5.5: D 5.5.* April to Aug. 1927 Technical Advisor of paving and sewer contracts for Bogota, Colombia. *TT 0.4: P 0.4: RC 0.4.* Sept. 1927 to date in private practice at West Englewood, N. J., special investigations, sewage disposal work. *TT 0.9: P 0.9: RC 0.9.* *TT 21.8: SP 2: P 19.8: RC 15.1: D 14.8.* Refers to C. L. Bogert, C. M. Jervis, R. Schweizer, Jr., J. F. Sanborn, J. M. Wilcox.

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(7) **JENKS, HARRY NEVILLE**, Assoc. M., Dept. of Civ. Eng., Iowa State Coll., Ames, Iowa. (Elected Junior May 15, 1917; Assoc. M. Nov. 9, 1920.) (Age 34, Born Maysville, Mo.) 1916 B. S. in C. E., Univ. of Cal. *TT 4: SP 4.* June to Sept. 1916 with Chas. G. Hyde on manuscript for report on possible sources of water supply for Sacramento, Cal. *TT 0.3: SP 0.3.* Sept. 1916 to Feb. 1917 Eng. Asst., Bureau of San. Eng., California State Board of Health, Berkeley, office, field and laboratory. *TT 0.4: SP 0.3: P 0.1: RC 0.1.* Feb. 1917 to June 1919 San Engr., Burma Mines, Ltd., Namtu, Burma, India, on public health work, water supply, sewage disposal, malaria, plague and cholera control. *TT 2.3: SP 0.5: P 1.8: RC 1.8: D 0.6.* June to Dec. 1919 Asst. Engr., California State Board of Health, field work, sewage treatment and sanitation of swimming pools. *TT 0.5: P 0.5: RC 0.5: D 0.2.* Dec. 1919 to Aug. 1922 Special Asst. Engr., Filtration Div., Sacramento, Cal., on design of pumping and filtration works (32 000 000 gal.), research, experimental development of apparatus, hydraulic design and filter details. *TT 2.6: SP 0.5: P 2.1: RC 2.1: D 1.1.* Aug. 1922 to May 1923 Asst. Engr., San. Dist. of Chicago, on design of North Side sewage-treatment works, studies and estimates. *TT 0.8: P 0.8: D 0.8.* June 1923 to Sept. 1926 with Pumping and Filtration Works, City of Sacramento, until Jan. 1924 as Asst. Engr. on construction, inspection and tests, then Supt., in responsible charge of operation, research problems, special designs and investigations; after Jan. 1924 also private consulting work as San. Engr. *TT 3.3: P 3.3: RC 3.3: D 1.* Sept. 1926 to date Associate Prof. of San. Eng., Dept. of Civ. Eng., Iowa State Coll., in charge of sanitary and hydraulic engineering course; since March 1927 also San. Engr., Eng. Experiment Station of the College, in charge of engineering work on research projects on treatment of industrial wastes. *TT 1.9: P 1.9: RC 1.9: D 0.3.* *TT 16.1: SP 5.6: P 10.5: RC 10.5: D 4.* Refers to J. W. Armstrong, C. H. Currie, C. Derleth, Jr., A. H. Fuller, C. G. Gillespie, C. G. Hyde, R. E. McDonnell, N. T. Veatch, Jr., G. Wilhelm.

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(1) **KUCHAR, FRANK MILES**, Assoc. M., R. F. D., No. 2, Box 61, Allendale, N. J. (Elected Junior Oct. 3, 1911; Assoc. M. Jan. 13, 1919.) (Age 39. Born Kutna Hora, Czechoslovakia.) 1917 C. E., Pol. Inst. of Brooklyn (Evening School). Oct. 1908 to April 1909 Chairman, New York State Water Supply Comm. *TT 0.2: SP 0.2.* April 1909 to Oct. 1911 Rodman, until May 1910 with Board of Water Supply, New York City, then with New York State Dept. of Highways, and after Nov. 1910 with New York State Engr. in office on design, Contracts A and B of Cayuga and Seneca Barge Canal, cost computations, in charge of field parties on

special surveys and construction, Contract 88 of Champlain Canal at Schuylerville, N. Y. *TT 1.2: SP 1.2: D 0.2.* Oct. 1911 to March 1918 with Public Service Comm., 1st Dist., New York, until July 1912 as Inspector of masonry, inspected borings for dual subway system in East River and New York City, then Jun. Engr., acting as Asst. to Sec. Engr. on construction of subway contracts, Routes 4 and 38, Secs. 2 and 4 and Route 29, Sec. 2, and after Aug. 1917 Asst. Engr. acting as Asst. to Sec. Engr. on construction of subway contract, Route 29, Sec. 2. *TT 6.1: SP 0.4: P 5.7: RC 5.7: D 1.2.* March 1918 to July 1919 Prin. Asst. Engr., J. G. White Eng. Corporation, acting as Asst. to Res. Engr. on construction of steam-power plant (90 000 kw.), pumping station, pipe lines, bus tunnel, etc., of U. S. Nitrate Plant No. 2, Muscle Shoals, Ala. *TT 1.3: P 1.3: RC 1.3: D 0.3.* Aug. 1919 to Jan. 1922 and Aug. 1923 to Feb. 1924 with Geo. F. Hardy, Cons. Engr., as Res. Engr. on construction of dam and 20 000-h. p. hydro-electric plant, survey and construction of 17 miles of transmission line at Chute Aux Galets, Que., Canada, survey of 86 miles of Abitibi River and report on power sites, Ontario, Canada, office design of paper-mill buildings and (after Aug. 1923) Engr. on detailed survey, report and design of hydro-electric plants and transmission lines, Long Sault, Abitibi River. *TT 3: P 3: RC 3: D 0.8.* Jan. 1922 to Aug. 1923 and Feb. 1924 to date member of firm and (since Jan. 1928) Pres., Kuchar Bros., Contrs., Constructors of bridges, disposal plants, reservoirs, pumping stations, etc. *TT 6: P 6: RC 6: D 0.7.* *TT 17.8: SP 1.8: P 16: RC 16: D 3.2.* Refers to H. Bennett, G. Ferguson, G. F. Hardy, F. Kurtz, J. F. Sanborn.

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(9) **LOVELL, CHARLES WILLIAM**, Assoc. M., 561 Eastern Parkway, Louisville, Ky. (Elected Nov. 21, 1921.) (Age 35. Born Greenville, Ky.) 1916 B. C. E., and 1923 C. E., Univ. of Ky. *TT 4: P 4.* June 1916 to date (except Sept. 1917 to Jan. 1919 Private, Sergeant, Master Engr., 2d Lieut. and 1st Lieut., Engr. Corps, U. S. Army) with Kentucky State Highway Dept. as follows: June 1916 to Sept. 1917 Chf. of Party on surveys and Constr. Engr.; Jan. to Aug. 1919 Draftsman; Aug. 1919 to Sept. 1921 Chf. Draftsman; Sept. 1921 to March 1924 Res. Engr. in charge of construction; March 1924 to March 1925 Asst. Dist. Engr.; since March 1925 Dist. Engr. *TT 11.5: SP 0.7: P 10.8: RC 10.8: D 5.9.* *TT 15.5: SP 0.7: P 14.8: RC 10.8: D 5.9.* Refers to C. H. Blackman, W. J. Carrel, J. S. Dawson, J. M. Johnson, M. E. S. Posey, D. V. Terrell, E. N. Todd.

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(13) **McKESSON, CLAUDE LEON**, Assoc. M., 3435 Serra Way, Sacramento, Cal. (Elected March 9, 1920.) (Age 47. Born Girard, Kans.) 1898 to 1901 Draftsman (2 years), and Laboratory Asst. (1 year). *TT 1.5: SP 1.5.* 1901 to 1905 student, patent law, designs, drawings and specifications. 1905 to 1906 Supt., Alaska Mine, Gilpin County, Colo., made surveys and maps. *TT 0.4: SP 0.4.* 1906 to 1907 Engr., Hare Contr. Co. of Colorado Springs, street and reinforced concrete construction, estimates, cost data and construction. *TT 0.6: SP 0.6.* 1907 to 1908 Supt. and Chf. Engr., Manitou (Colo.) Incline Ry., in charge of design and construction and (first season) operation. *TT 1: P 1: RC 1: D 1.* 1909 to 1910 Surveyor, Los Angeles Aqueduct, in charge of surveys in Div. 5, supervised concrete work and (at times) responsible for alignment of 12 to 15 tunnel headings. *TT 1: P 1.* 1910 to 1911 Contr., street improvement work. *TT 1.5: P 1.5.* 1911 to 1916 with City Engr.'s Dept., Los Angeles, about 7 months as Surveyor (Chf. of Party), then Asst. Engr., on sewer design and plans (7 months) Asst. Paving Engr. (4 years) and in charge of revision of specifications and of research investigations for all city improvement work. *TT 4.9: P 4.9: RC 1.3: D 1.3.* 1917 to 1919 First Lieut. and Capt., Corps of Engrs., U. S. Army, in France with 23d Engrs. (1½ years); in training camps and with troops in United States. *TT 1.9: P 1.9.* 1919 to 1924 Senior Highway Engr., U. S. Bureau of Public Roads, in charge of Post Road Div. of Dist. 1 (Oregon, Washington, Montana and Idaho), having immediate direction of work (\$11 000 000) and personal supervision of soil and subgrade studies. *TT 4.5: P 4.5: RC 4.5: D 4.5.* 1924 to date Materials and Research Engr., California Highway Comm., in immediate charge of testing and research laboratory and all research work; also field and laboratory determination of materials. *TT 4.3: P 4.3: RC 4.3: D 4.3.* *TT 21.6: SP 2.5: P 19.1: RC 11.1: D 11.1.* Refers to L. I. Hewes, R. A. Klein, R. M. Morton, C. S. Pope, C. H. Purcell.

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(12) **MARS, LEWIS DONALD**, Assoc. M., 411 Masonic Temple, Salem, Ore. (Elected June 1, 1920.) (Age 37. Born Kalamazoo, Mich.) Sept. 1909 to Feb. 1911 Gen. Asst. to a Civ. Engr. on mine and land surveys, field and office. *TT 0.8: SP 0.8.* May to Nov. 1911 Rodman, and June to Nov. of years 1914 and 1915 Recorder, U. S. Geological Survey. *TT 0.8: SP 0.8.* May to Oct. 1912 Rodman, United Ry., Portland, Ore. *TT 0.2: SP 0.2.* Oct. 1912 to Jan. 1913 Recorder making valuation inventory of Portland St. Ry. System. *TT 0.3: P 0.3.* May 1913 to June 1914 Instrumentman and Party Chf., Tumalo (Ore.) Irrigation Project.

TT 1: P 1: RC 0.5. Dec. 1915 to Dec. 1916 Rodman, and Dec. 1916 to June 1918 Jun. Civ. Engr., Structural Dept., Interstate Commerce Comm., inventory and valuation. *TT 1.3: SP 0.3: P 1.* June 1918 to June 1927 Asst. San. Engr., U. S. Public Health Service, until Aug. 1920 on malaria control in charge of work in Arkansas and Asst. in charge at Camp Pike, Ark., and (March to Sept. 1919) malaria investigation in rice fields of California, from Aug. 1920 to March 1921 Acting State San. Engr., Oregon, and after March 1921 Asst. to Engr. in Chg., National Park sanitation. *TT 9: P 9: RC 9: D 8.* June 1927 to date in private practice as Cons. San. Engr.; since Sept. 1927 also in charge of revision of sewerage and drainage system, Salem, Ore. *TT 1.2: P 1.2: RC 1.2: D 1.2.* *TT 14.6: SP 2.1: P 12.5: RC 11: D 9.2.* Refers to C. G. Gillespie, C. G. Hyde, O. Laurgaard, I. W. Mendelsohn, F. T. Oakley, H. S. Rogers.

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(1) **MILLER, HIRAM**, Assoc. M., 2 Rector St., New York City. (Elected Jan. 5, 1909.) (Age 48. Born Middlefield, Conn.) 1901 Ph. B., Sheffield Sci. School. *TT 4: P 4.* July 1901 to May 1902 Rodman and Instrumentman, Feb. 1903 to Aug. 1904 Transitman, after Oct. 1903 in charge of field party, Aug. 1904 to Aug. 1905 Asst. Div. Engr. in charge of field party on location of line, and Dec. 1906 to Dec. 1907 Div. Engr. in full charge of locating party on surveys and reconnaissance, all for Mexican International R. R. May to Sept. 1902 Asst. to Res. Engr., Tlahualilo Co., Lerdo-Durango, Mexico, on construction of drainage canal and storage reservoir and stream gauging. Sept. 1902 to Jan. 1903 post-graduate student in Civ. Eng., Sheffield Scientific School. *TT 4.2: SP 0.6: P 3.6: RC 2.* Nov. 1905 to March 1906 with A. William Sperry, Civ. Engr., New Haven, Conn. March to Nov. 1906 Rodman and Instrumentman, Pennsylvania, New York & Long Island R. R. Co., New York City. *TT 0.6: SP 0.6.* Jan. 1908 to Feb. 1909 Locating Engr., Bolivia Ry. Co., until Dec. 1908 in charge of construction as Res. Engr., Viacha, Oruro Line, then in charge of locating party on surveys, Oruro-Cochabamba Line. *TT 1.2: P 1.2: RC 1.2.* March to Dec. 1909 traveling, etc. Jan. 1910 to March 1911 City Engr., Middletown, Conn., and in private practice. *TT 1.2: P 1.2: RC 1.2.* March 1911 to June 1912 Asst. to Supt., New Haven Water Co., on construction of pipe lines, stream gauging and office records. *TT 1.2: P 1.2: RC 1.2.* June 1912 to Aug. 1913 Draftsman and Designer, Alabama Power Co., Birmingham, Ala., on computations and design of dams, retaining walls, reinforced concrete, power-house substructure, etc., for hydro-electric development of Lock 12, Coosa River, power studies, stream flow, etc. *TT 1.2: P 1.2: RC 1.2: D 1.2.* Oct. 1913 to March 1920 Inspector and Jun. Engr., U. S. Engr. Dept., until March 1915 on river and harbor surveys, inspection of material, drafting and report on power development on Connecticut River and tributaries, New London (Conn.) Dist.; 1915 to 1916 Jun. Engr. in office of Dept. Engr., Ft. Sam Houston, Tex., in charge of preparation of special maps of areas along Mexican Border and Northern Mexico; 1916 to 1920 Jun. Engr. at New London, on river and harbor surveys, inspection of material and drafting; about 3 years chiefly on designs for fortifications and miscellaneous structures. *TT 6.4: P 6.4: RC 4: D 3.* March 1920 to March 1921 Res. Engr., Lockwood, Greene & Co., Boston, Mass., until June 1920 being Asst. on construction of new plant for Hartford (Conn.) Harbor Works, then in charge of construction of mill for Albany (N. Y.) Felt Co.; March to May 1921 Draftsman and Computer, U. S. Engr. Office, New London; May to Oct. 1921 on computations of system of harbor lines for New London and Stamford Harbors. *TT 1.5: P 1.5: RC 1.5.* 1922 to date with Elec. Bond & Share Co., New York City, on hydro-electric developments, as Designer in Hydr. Div., and since Jan. 1923 Asst. Hydr. Engr. in charge of design. *TT 6: P 6: RC 6: D 6.* *TT 27.5: SP 1.2: P 26.3: RC 18.3: D 10.2.* Refers to F. W. Andros, A. C. Clogher, D. W. Cole, W. S. Merrill, C. N. Phillips, G. M. Tompson, F. Williams.

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(1) **MORENO, MARIANO**, Assoc. M., 225 East Seventy-Ninth St., New York City. (Elected Jan. 18, 1926.) (Age 36. Born Curuzu Cuatia, Corrientes Prov., Argentina.) 1922 B. S. in C. E., Univ. of Pittsburgh. *TT 4: P 4.* June 1915 to Jan. 1916 Inspector and Draftsman, Argentine Naval Comm. at New York Shipbuilding Corporation, Camden, N. J. *TT 0.3: SP 0.3.* Jan. 1916 to Jan. 1917 Draftsman, Baldwin Locomotive Works, Philadelphia, Pa. *TT 0.5: SP 0.5.* Jan. to July 1917 Inspector, Dept. of San. Works of Buenos Aires, Argentina, at various plants of United States Cast Iron & Foundry Co., Burlington, N. J. *TT 0.2: SP 0.2.* July 1917 to Jan. 1919 Structural Draftsman, Allen & Garcia Co., Chicago, Ill., and (after May 1918) Pensacola (Fla.) Shipbuilding Co. *TT 0.7: SP 0.7.* Feb. 1919 to July 1920 Asst. Engr., designing and estimating steel buildings and bridges, McClintic-Marshall Constr. Co., Pittsburgh, Pa. *TT 1.3: P 1.3: RC 1.3: D 1.3.* July 1920 to Sept. 1921 Structural Designer and Detailer, National Conveying Equipment Corporation, Chicago. *TT 1.1: P 1.1: RC 1.1: D 1.1.* Dec. 1921 to Aug. 1922 Senior in Civ. Eng., Univ. of Pittsburgh. Aug. 1922 to Sept. 1923 Designer and Estimator, Structural Dept., New York Ship-

building Corporation, Camden, N. J. *TT 1.1: P 1.1: RC 1.1: D 1.1.* Oct. 1923 to June 1924 bridge designing and detailing, Strauss Bascule Bridge Co., Chicago. *TT 0.7: P 0.7: RC 0.7: D 0.7.* July 1924 to Oct. 1925 Bridge Designer and on general structural work, Chicago, Rock Island & Pacific Ry. Co., Bridge Dept., Chicago. *TT 1.3: P 1.3: RC 1.3: D 1.3.* Oct. 1925 to date Associate Prof. of Civ. Eng., Manhattan Coll., New York City, also (part of time) in private practice. *TT 2.8: P 2.8: RC 2.8: D 2.8.* *TT 1.4: SP 1.7: P 12.3: RC 8.3: D 8.3.* Refers to J. S. Branne, J. J. Costa, J. S. Lamble, C. A. Morse, J. H. Smith.

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(14) **MULLERGREN, ARTHUR LEONARD**, Assoc. M., 770 Board of Trade Bldg., Kansas City, Mo. (Elected Jan. 17, 1921.) (Age 38. Born Helena, Ark.) Graduate, International Correspondence Schools. 1912-1914 Cons. Engr. on design, supervision and appraisal of public utility properties, including design of water-works plant and system for Talihana, Okla., street-lighting system for Poteau, Okla., electrification of coal mines of Witteville Min. Co., appraisal of electric properties of LeFlore County Gas & Elec. Co. and Wichita Elec. Power Co. *TT 2: P 2: RC 1.1: D 1.1.* 1915-1917 with Benham Eng. Co., Cons. Engrs., Oklahoma City, had charge of design and supervision of light and power plants in various cities (names given in application); acted as Cons. Engr. for operation of light and power plants of Holdenville Ice & Elec. Co., Norman Light & Power Co., McThwalte Natural Gas Co., and LeFlore County Gas & Elec. Co. *TT 4: P 4: D 3.* 1918 to 1919 Capt., Constr. Div., U. S. Army, Camp Funston, Kans., in charge of electric light and power and steam heating systems of camp. *TT 1: P 1.* 1919 to 1920 member of firm, Johnson & Benham, Cons. Engrs., New York and Kansas City. *TT 1: P 1: D 1.* 1921 to date Cons. Engr., on valuation, design and reports of light and power plants and systems in various cities, including pumping and boiler plants, distribution systems, central power stations, etc. (given in detail in application). *TT 7.5: P 7.5: RC 7.5: D 7.5.* *TT 19.5: P 19.5: RC 8.6: D 12.6.* Refers to E. W. Bacharach, C. A. Haskins, C. E. Jacoby, G. A. Johnson, R. E. McDonnell, N. T. Veatch, Jr.

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(5) **NORSWORTHY, LEONARD DRAKE**, Assoc. M., 1731 Kilbourne Pl. N. W., Washington, D. C. (Elected June 3, 1915.) (Age 48. Born New York City.) 1909 C. E., and 1910 M. A., Columbia Univ. *TT 4: P 4.* June 1900 to April 1901 Draftsman, Holland Torpedo Boat Co., New York Office. *TT 0.4: SP 0.4.* April 1901 to Oct. 1905 Draftsman, Office of U. S. Naval Constructor, Bath (Me.) Iron Works, designing, checking plans, supervising payment estimates and weight calculations. *TT 3.5: SP 1: P 2.5: RC 1: D 1.* Oct. 1905 to June 1909 student, and June 1909 to Oct. 1910 Asst. in Civ. Eng. and graduate student, Columbia Univ. *TT 1.3: P 1.3.* Oct. 1910 to June 1912 Asst. Prof. of Mathematics, Grinnell (Iowa) Coll.; 1911-1912 also Acting City Engr., Grinnell; summers 1909-1912 Instructor in surveying and geodesy, Columbia Univ. Summer School, Camp Columbia, Morris, Conn. *TT 1.7: P 1.7.* June 1912 to May 1913 Instructor in, and May 1913 to May 1917 Asst. Prof. of, Civ. Eng., Columbia Univ. *TT 4.9: P 4.9: RC 4.9.* May 1917 to July 1918 Draftsman, Navy Dept., Washington, D. C., investigating structural strength of ships, reinforced concrete bulkheads, etc. *TT 1.1: P 1.1: D 1.1.* July 1918 to March 1919 Structural Designer, Constr. Div., U. S. Army, on design of reinforced concrete and steel buildings, oil tanks, ash hoppers, etc.; 1918-1919 (evenings) Asst. Prof. of Civ. Eng., George Washington Univ. *TT 0.7: P 0.7: D 0.7.* March 1919 to date with Office of Chf. of Engrs., until Nov. 1922 as Prin. Asst., Marine Design Div., designing, supervising design, and writing specifications for hopper, pipe line and bucket dredges, towboats, etc.; since Nov. 1922 Civ. Engr., checking design and specifications of steel and concrete structures, bridges, dams, dredges, etc.; at present on review of all hydro-electric projects affecting navigable waters of United States and surveys of streams, etc. *TT 9.4: P 9.4: RC 6.7: D 3.7.* *TT 27: SP 1.4: P 25.6: RC 12.6: D 6.5.* Refers to G. E. Beggs, W. H. Burr, E. L. Daley, W. Gerig, S. Hardesty, H. W. Hobbs, M. W. Lewis, A. B. McDaniel.

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(13) **PARSONS, AUGUSTUS TABER**, Assoc. M., 1863 Tacoma Ave., Berkeley, Cal. (Elected Junior June 5, 1906; Assoc. M. Oct. 4, 1910.) (Age 45. Born New York City.) 1904 A. B. in Civ. Eng., Stanford Univ. *TT 4: P 4.* 1904 to 1906 Rodman, Instrumentman, etc., Western Pacific R. R. *TT 1: SP 1.* 1906 to 1907 Draftsman, Ocean Shore R. R. *TT 0.1: SP 0.1.* 1907 to 1908 Asst. Engr. and 1908 to 1909 Engr., Summit Lake Investment Co., Fresno, Cal. *TT 1.5: SP 0.5: P 1: RC 1.* 1908 Engr., J. S. James Co. *TT 0.4: P 0.4: RC 0.4.* 1909 to 1913 in private practice of engineering, Bakersfield, Cal. *TT 4.5: P 4.5: RC 4.5.* 1913 to 1914 Engr., Universal Oil Co., Wasco, Cal. *TT 0.8: P 0.8: RC 0.8.* 1914 on valuation work for P. E. Harroun, San Francisco, Cal. *TT 0.1: SP 0.1.* 1914 to 1921 on editorial work, 6 years in charge, *Western Engineering and Metal Trades*, San Francisco. *TT 6.5: P 6.5.* 1921 to 1923 Advertising Mgr., Pelton Water Wheel Co., San Francisco. 1923 to 1927 not on engineering work. 1927 to date with Frank Rieber, Inc., San Francisco,

in general charge of field work and office interpretation of geophysical surveys. *TT 1.3: P 1.3: RC 1.3. TT 20.2: SP 1.7: P 18.5: RC 8.* Refers to H. D. Dewell, P. E. Harroun, W. L. Huber, E. C. Hutchinson, C. H. Lee, C. D. Marx, E. T. Thurston.

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(4) **PENDLETON, THOMAS PERCY**, Assoc. M., 1607 Walnut St., Philadelphia, Pa. (Elected Nov. 26, 1918.) (Age 42. Born Nicolaus, Cal.) 1907 to 1908 student, Coll. of Civ. Eng., Univ. of California. *TT 0.5: P 0.5.* 1905 to 1906, May 1909 to Feb. 1918, March 1919 to March 1920, March 1921 to March 1922 and March 1923 to July 1926 with U. S. Geological Survey, until March 1921 successively as Rodman, Recorder, Junior and Asst. Topographer on surveys, drafting, etc. Topographer on reconnaissance surveys with panoramic camera in Alaska (Mt. McKinley National Park), compilation of camera surveys of Mt. Katmai National Park, from March 1921 to March 1922 Topographic Engr., Chf., Sec. of Photographic Mapping, organizing section and developing methods, and after March 1923 Chf. of same Sec. *TT 14.5: SP 0.5: P 14: RC 12.8: D 12.6.* 1908 Time-keeper and Inspector, Cotton Bros., Oakland, Cal., on reinforced concrete construction. *TT 0.4: SP 0.4.* March 1918 to March 1919 Lieut., Engrs., U. S. Army, in office of Chf. of Engrs., on design and development of tri-lens mapping camera, in charge of instruction, School of Surveying and Mapping, Washington Barracks. *TT 1: P 1: RC 1: D 1.* March 1920 to March 1921 and March 1922 to March 1923 Topographer in charge of topographic surveys for geological studies by Standard Oil Co. of New York, in Turkey, Palestine, Croatia, Bosnia and Albania. *TT 2: P 2: RC 2: D 2.* July 1926 to date in charge of surveys with Brock & Weymouth, Inc. *TT 2: P 2: RC 2: D 2. TT 20.4: SP 1.4: P 19: RC 17.8: D 17.6.* Refers to C. H. Birdseye, W. Bowie, E. M. Douglas, T. G. Gerdline, A. F. Haasan, J. C. Hoyt, R. B. Marshall.

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(5) **SCHOPPE, RAY LONGFELLOW**, Assoc. M., U. S. Coast and Geodetic Survey, Washington, D. C. (Elected Oct. 2, 1922.) Licensed (Marine) Master of steam or motor vessels. (Age 39. Born Pittsburg, N. H.) 1912 B. S. in C. E., Univ. of Vt. *TT 4: P 4.* July 1912 to April 1913 Instrumentman, Canadian Pacific Ry. *TT 0.4: SP 0.4.* Aug. 1913 to Sept. 1917 Field Officer, U. S. Coast and Geodetic Survey, being Instrumentman in charge of subparties on triangulation, hydrography, topography, magnetics, and on office computations. *TT 2: SP 2.* Sept. 1917 to March 1919 Lieut. (J. g.) and Lieut., U. S. Naval Reserve, on active duty as Navigating Officer in Transport Force and Asst. Inspector of Navigation Equipment at U. S. Naval Observatory, Washington, D. C. *TT 0.8: SP 0.8.* March 1919 to date Commissioned Officer in Field Force, U. S. Coast and Geodetic Survey as follows: April 1919 to May 1920 Executive Officer on S. S. *Bache* and *Ranger*; May to Sept. 1920 Chief of Subparty and Observer on precise triangulation in Arizona and New Mexico; Sept. 1920 to Feb. 1921 Chf. of Party and Observer on same work in Oklahoma; then on Philippine surveys; April to Oct. 1921 Executive Officer on S. S. *Fathomer*; Oct. 1921 to March 1922 in charge of Computing Div., Manila Suboffice; March 1922 to June 1923 commanding S. S. *Marinduque* and Chf. of Party on surveys (combined operations); Sept. 1923 to Jan. 1924 Chf. of Party in charge of current survey of San Francisco Bay and Commanding Officer of S. S. *Natoma*; Feb. 1924 to Oct. 1925 Executive Officer on S. S. *Discoverer* on surveys of Alaskan and Pacific Coast waters; Dec. 1925 to May 1927 commanding S. S. *Bache* and Chf. of Party on resurvey of Tampa Bay and vicinity of Pensacola, Fla.; June 1927 to March 1928 Chf. of Party, on revision of Coast Pilot, Atlantic Coast from Cape Henry, Va., to Key West, Fla.; since April 1928 Chf. of Party in command of S. S. *Ranger* on combined operations, coast of Florida and of New Jersey. *TT 8: SP 0.8: P 7.2: RC 5.1: D 4.3. TT 15.2: SP 4: P 11.2 RC 5.1 D 4.3.* Refers to L. O. Colbert, C. V. Hodgson, E. H. Pagenhart, W. E. Parker, R. S. Patton, H. A. Seran, A. M. Sobieralski

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(4) **SCHWORM, FRED GAST**, Assoc. M., 828 East Stafford St., Philadelphia, Pa. (Elected June 19, 1922.) (Age 42. Born LeClaire, Iowa.) 1909 B. C. E., Iowa State Coll. *TT 4: P 4.* June 1909 to Dec. 1910 Draftsman, and June 1914 to March 1918 Draftsman and Checker, American Bridge Co., Ambridge, Pa., detailing and checking steel railway and highway bridges, movable bridges and mill buildings. *TT 2.7: SP 2.7.* Jan. 1911 to April 1914 Asst. Engr., Dept. of Public Works, Manila, Philippine Islands, on surveys and construction of roads, bridges and buildings. *TT 3.3: P 3.3: RC 3.3: D 1.* March 1918 to July 1920 with International Shipbuilding Corporation, Hog Island, as Draftsman (5 months) and Inspecting Engr. (1 year) on steel ship work and Foreman and Gen. Foreman on ship construction (1 year). *TT 2.2: SP 0.2: P 2: RC 1.* Aug. 1920 to Jan. 1921 Chf. of Party with Stone & Webster, power-house construction, steel erection. *TT 0.4: P 0.4.* March 1921 to date with City of Philadelphia, as follows: March to May 1921 Draftsman on elevated

railway design and July 1924 to April 1927 Asst. Engr. on design of sewers and other underground structures for subway construction, Dept. of City Transit; May 1921 to July 1924 Asst. Engr., Bureau of Highways, one year on investigation and design for, and about seven months on construction of, bridge repairs and 1½ years in charge of building and bridge design; since April 1927 Div. Engr. of Bridges, Bureau of Eng., supervising designs, specifications, ordinances, construction and general bridge building for the city. *TT 7.2: SP 0.1: P 7.1: RC 7.1: D 5.4. TT 19.8: SP 3: P 16.8: RC 11.4: D 6.4.* Refers to P. S. Baker, S. Harris, S. H. Noyes, H. H. Quimby, C. S. Shaughnessy, J. A. Vogleson.

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(6) SIMPSON, BURR HENRY, Assoc. M., 70 Kanawha St., Buckhannon, W. Va. (Elected Dec. 6, 1915.) (Age 43. Born Buckhannon, W. Va.) 1900 to 1903 student, scientific course, West Virginia Wesleyan Univ. Sept. 1904 to July 1905 Rodman, Coal & Coke Ry., West Va. *TT 0.4: SP 0.4.* April to July 1906 Instrumentman, Chesapeake & Ohio R. R. *TT 0.1: SP 0.1.* Aug. 1906 to April 1907 Transitman, Lewiston & Southeastern Elec. Ry. *TT 0.8: P 0.8: RC 0.8.* April to July 1907 Chf. of Party, Inland Power & Elec. Co., Washington, reconnaissance, preliminary and partial location (53 miles). *TT 0.3: P 0.3: RC 0.3: D 0.3.* July to Oct. 1907 Asst. Engr., Oregon R. R. & Navigation Co., Oregon, on branch line construction, drainage tunnels, stations. *TT 0.3: P 0.3: RC 0.3.* Oct. 1907 to Nov. 1909 in private practice at Spokane, on location, design and construction of 9-mile mountain railroad spur; surveys for water-power development and irrigation projects, underground and surface work for copper mining companies; U. S. Deputy Mineral Surveyor. *TT 2.1: P 2.1: RC 2.1: D 2.1.* April 1911 to July 1912 Draftsman and Computer, until April 1912 with Frog & Switch Dept., Penna Steel Co., Steelton, Pa., on special track work, then with Track Dept., The Falk Co., Milwaukee, Wis. *TT 0.6: SP 0.6.* July 1912 to Jan. 1913 Civ. Engr., Gogebic & Iron Counties Ry. & Light Co., Ironwood, Mich., on location and construction of electric railway (7 miles), filtration plant. *TT 0.4: P 0.4: RC 0.4: D 0.4.* Sept. 1913 to May 1914 Computer (1½ months) and Asst. Engr., J. G. White Co., New York, on appraisal survey, Atlantic Coast Line R. R. *TT 0.7: P 0.7: RC 0.5.* May 1914 to April 1917 with Ohio State Highway Dept., Columbus, Ohio, as acting Res. Engr. on construction of national road between Hendrysburg and New Concord, Ohio, and (1 year) Deputy Engr. in Knox County, in charge of surveys and construction for State Road Comm. *TT 2.6: P 2.6: RC 2.6: D 2.6.* April 1917 to Aug. 1918 Field Engr., and March 1919 to Jan. 1921 Field Engr. and Asst. Dist. Engr., Portland Cement Association, Pittsburgh, Pa., promotion work on concrete roads. *TT 3.2: P 3.2.* Aug. 1918 to March 1919 with U. S. Ordnance Dept., Cleveland, until Nov. 1918 as Production Asst., visiting shell plants, then Special Asst. to Claims Board, being Referee in settlement of claims. *TT 0.6: P 0.6: RC 0.6.* Jan. 1921 to Jan. 1927 Sales Engr., Kentucky Rock Asphalt Co., Louisville, Ky. *TT 3: SP 3.* Nov. 1926 to date City Engr., Buckhannon, W. Va., in charge of design and construction of streets, sewers, etc. *TT 1.6: P 1.6: RC 1.6: D 1.6. TT 16.7: SP 4.2: P 12.5: RC 9.1: D 7.* Refers to G. M. Bassel, C. P. Fortney, J. K. McGrath, A. S. Mirick, M. W. Smith, Jr., A. C. Toner, P. J. Walsh.

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(1) STADTFELD, NICOLAAS THEODORUS FRANCISCUS, Assoc. M., 94-66 Two Hundred and Twenty-Fourth St., Queens Village, N. Y. (Elected Feb. 25, 1924.) (Age 44. Born Amsterdam, Holland.) 1905 C. E., Coll. of Eng., Delft, Holland. *TT 4: P 4.* Jan. 1906 to May 1909 Instrumentman, Pennsylvania Tunnel & Terminal Co., in charge of parties giving line and grade, computing final estimates. *TT 3.3: P 3.3: RC 2.3.* May 1909 to Aug. 1912 Asst. Engr., M. of W. Dept., Elec. Div., New York Central & Hudson River R. R., in charge of right-of-way surveys, side-track layouts, line and grade for structures; design of buildings, including 1 500-h. p. boiler house. *TT 3.2: P 3.2: RC 3.2: D 3.2.* Aug. 1912 to Jan. 1916 Chf. Inspector, Bay Ridge Improvement, Brooklyn, N. Y., in charge of inspectors supervising manufacture and placing of reinforced concrete for construction of East New York Tunnel. *TT 3.4: P 3.4: RC 3.4.* Jan. 1916 to Jan. 1923 with Long Island R. R. as Special Investigator, Valuation Dept., acting as Pilot for Govt. structural party, inventorying and computing bridges, docks, etc. (2 7/12 years) and Bridge Inspector, Eng. Dept., inspecting bridges and steel buildings, mill and shop inspection for new work (4 5/12 years). *TT 7: P 7.* Sept. 1922 to March 1927 (6 months each year) Evening Instructor, Pratt Inst., Brooklyn, N. Y., teaching design and detailing of steel structures. Jan. 1923 to May 1925 Asst. Engr., Materials Inspection, Tunnel Div., Office of Chf. Engr., Board of Estimate and Apportionment, New York City, in charge of inspection and manufacture of materials for The Narrows Tunnel. *TT 2.3: P 2.3: RC 2.3.* June 1925 to date Asst. Engr., Board of Transportation, New York City, in charge of Physical Laboratory, testing materials of engineering for subway construction and Holland Tunnels, since Oct. 1926 also in charge of taking and

testing of concrete specimens for control of concrete construction, New York City subways. *TT 3.1: P 3.1: RC 3.1. TT 26.3: P 26.3: RC 14.3: D 3.2.* Refers to D. W. Coe, C. D. Drew, J. B. French, W. M. Griffin, G. L. Lucas, J. H. Quimby, E. L. Taylor.

1061

(1) **STEINHAUSER, HARRY HERMAN**, Assoc. M., 2 Rector St., New York City. (Elected Junior Feb. 4, 1913; Assoc. M. March 13, 1917.) (Age 41. Born Rochester, N. Y.) 1912 B. C. E., Univ. of Mich. *TT 4: P 4.* July to Sept. 1912 Teaching Asst., Civ. Eng. Summer Camp, Univ. of Michigan. *TT 0.2: P 0.2.* Sept. 1912 to Feb. 1914 Asst. to Hydr. Engr., Rochester (N. Y.) Ry. & Light Co., carried out efficiency tests on turbines in several hydro stations, investigated proposed installations, in charge of design of hydro-electric station (4500 kw.) with head-works, penstock, power-house, concrete draft tubes and siphon spillway. *TT 1.4: P 1.4: RC 1: D 0.4.* Feb. 1914 to Feb. 1918 with Dock Contr. Co., Hoboken, N. J., until Nov. 1915 as Asst. to Supt. on structural steel, concrete and sewer construction, Sec. 4, Route 5, Broadway Subway, New York City, then Engr. and Asst. Supt. of Constr., Sec. 2, Route 29, Nostrand Ave. Subway, Brooklyn. *TT 4: P 4: RC 2.6.* Feb. 1918 to Jan. 1919 Cadet, and 2d Lieut., Air Service, U. S. Army. Jan. 1919 to Nov. 1922 Engr. and Asst. Supt., Raymond Concrete Pile Co., on construction of precast pile wharves and piers, wood pile and timber wharves and bulkheads, building foundations and general construction. *TT 3.8: P 3.8: RC 2.5.* March 1923 to Jan. 1924 Asst. Engr., Guggenheim Bros., New York City, on design of two small high-head hydro-electric plants, also general design. *TT 0.8: P 0.8: D 0.8.* Jan. 1924 to date Asst. to Hydr. Engr., Elec. Bond & Share Co., in charge of design of several hydro-electric installations, also intakes and foundations for steam- and Diesel-electric stations. *TT 4.5: P 4.5: RC 4.5: D 4.5. TT 18.7: P 18.7: RC 10.6: D 5.7.* Refers to A. F. Barnes, A. C. Clogher, J. J. Collins, F. J. Howes, C. T. Johnston, W. V. McMenimen, J. C. Parker, C. N. Phillips.

1062

(9) **TITUS, WILLIAM JACY**, Assoc. M., State Highway Comm., Indianapolis, Ind. (Elected Dec. 2, 1914.) (Age 44. Born near Kirklia, Ind.) 1909 A. B. (Mathematics), Ind. Univ. 1913 B. S. C. E. and C. E., Univ. of Wis. *TT 4: P 4.* Aug. 1906 to Aug. 1907 Flagman, etc. to Transitman, American Eng. Co., on railroad surveys. *TT 0.5: SP 0.5.* Aug. 1907 to Aug. 1911 Laborer, Straw-Boss, Foreman and Supt. on concrete bridges, retaining walls, coal and cinder bunkers, National Concrete Co., Indianapolis. *TT 2: SP 1: P 1: RC 1.* Aug. to Dec. 1911 Laborer, Foreman and Field Supt. on construction of reinforced concrete chimneys, Weber Chimney Co. *TT 0.4: SP 0.1: P 0.3: RC 0.3.* June to Sept. 1912 Supt. of Constr., Lincoln Constr. Co., on two river bridges in Northern Nebraska, involving pile driving, open caisson sinking and commissary maintenance. *TT 0.3: P 0.3: RC 0.3.* Sept. 1912 to June 1914 Designer and Detailer, Chicago, Milwaukee & St. Paul Ry., on reinforced concrete and structural steel bridges, chiefly grade-separation. *TT 0.9: SP 0.4: P 0.5: D 0.9.* June 1914 to Sept. 1918 Design Checker and Field Engr., National Bridge Co., on reinforced concrete bridges, including long-span arch bridge over Arkansas River, Little Rock, Ark. *TT 4.3: P 4.3: RC 4.3: D 4.3.* Sept. 1918 to March 1919 Structural Designer, Pomilio Bros. Corporation, on aeroplane experimental work. *TT 0.5: P 0.5: RC 0.5: D 0.5.* May 1919 to Aug. 1925 Bridge Engr. and Aug. 1925 to date Chf. Engr., Indiana Highway Comm., in charge of surveys, design and construction of structural steel and reinforced highway bridges, grade separations and pavements (total approx. \$20 100 000). *TT 9.5: D 9.5: RC 9.5: D 6.5. TT 22.4: SP 2: P 20.4: RC 15.9: D 12.2.* Refers to C. Brossman, W. W. DeBerard, H. O. Garman, W. K. Hatt, A. P. Melton, L. V. Sheridan, F. E. Turneaure.

1063

(8) **TURPIN, UPSHUR FARRINGTON**, Assoc. M., 205 West Wacker Drive, Chicago, Ill. (Elected Jan. 18, 1926.) (Age 33. Born Angus, Iowa.) 1918 B. S. C. E., Purdue Univ. *TT 4: P 4.* July 1918 to March 1919 Asst. to Director, Bldg. Material Div., War Industries Board, Dept. of Clearance and Allocation. *TT 0.4: SP 0.4.* April 1919 to May 1924 Asst. Engr., W. E. Buell & Co., Sioux City, Iowa, from Inspector to Engr. in charge of design on water-works, sewerage, sewage disposal. *TT 4.8: SP 0.2: P 4.6: RC 3.6: D 3.6.* May 1924 to date Office Engr. with Consoer, Older & Quinlan, Cons. Engrs., in charge of design of sewer, water-works, paving, etc. *TT 4.2: P 4.2: RC 4.2: D 4.2. TT 13.4: SP 0.6: P 12.8: RC 7.8: D 7.8.* Refers to A. W. Consoer, G. O. Consoer, G. C. D. Lenth, C. Older, G. A. Quinlan.

1064

(1) **VON FABRICE, ROMAN**, Assoc. M., 80 Park Pl., Newark, N. J. (Elected March 12, 1923.) (Age 40. Born Wilton, Conn.) Licensed Archt. and Mech., Elec. and Structural Engr., State of New Jersey. Licensed Prof. Engr., New York State. Took extension courses at Columbia Univ. and evening courses at Brooklyn Polytechnic Inst. July 1909 to Nov.

1910 with Westinghouse, Church, Kerr & Co., New York City, on design and layout of mechanical equipment, pipe tunnels, heating systems, equipment layout for railroad repair shop. *TT 1.2: P 1.2: D 1.2.* Nov. 1910 to Nov. 1912 with Brooklyn (N. Y.) Edison Co., on design of power-house equipment installation, coal handling and general-building plans for stations, substations and store rooms, also checking designs and field notes. *TT 2: P 2: D 2.* Nov. 1912 to Feb. 1913 with Robins Conveying Belt Co., New York City, on design and checking coal and material handling equipment, structures, etc. *TT 0.2: P 0.2: D 0.2.* Feb. 1913 to Feb. 1922 Chf. Draftsman, Public Service Elec. Co., Newark, N. J., in responsible charge of all structural, foundation, electrical, mechanical and architectural designs, plans and details, consisting of plans for construction of new work, extensions and alterations of company's property, including Essex and Burlington Power stations, numerous substations, line-crossing towers, several storerooms and distribution buildings, steel stacks, steel turbine foundations (turbines 10 000 to 45 000 kw.) and coal towers and coal-handling bridges. *TT 9: P 9: RC 9: D 9.* Feb. 1922 to Jan. 1923 with Public Service Production Co., Newark, until 1924 as Chf. Draftsman, then Designing Engr., in charge of all structural, foundation, electrical, mechanical and architectural designs, including plans and designs for Kearny power station, Hudson, Marion, Athenia, Trenton, Roseland, West Orange and Metuchen 132 000 volt-switching stations, two extensions to Public Service terminal, flat slab reinforced concrete distribution buildings for Public Service Elec. & Gas. Co., at Paterson, Jersey City, Burlington and New Brunswick, commercial offices in Jersey City, New Brunswick, Rutherford, Hoboken, etc., also numerous substations, etc. *TT 5.9: P 5.9: RC 4.3: D 4.3. TT 18.4: P 18.4: RC 13.3: 16.8.* Refers to N. A. Carle, H. H. George, C. Gilman, E. W. Maloney, G. A. Orrok.

1065

(14) WAGNER, ELMER CHESTER LOUIS, Assoc. M., 604 Central Trust Bldg., Jefferson City, Mo. (Elected Oct. 11, 1920.) (Age 42. Born Wilton, Iowa.) 1908 A. B., Yale Univ. *TT 2: P 2.* Jan. 1910 to Dec. 1911 with Hedrick & Cochrane, Cons. Engrs., Kansas City, Mo., as Instrumentman, Draftsman and Inspector, on surveys, construction of pneumatic bridge foundations and Asst. Res. Engr. on construction of reinforced concrete viaduct (\$680 000) in Dallas, Tex. *TT 1: SP 1.* Dec. 1911 to March 1913 Engr. and Asst. Supt., Corrigan-Halpin Constr. Co., in full charge of construction of half of O. K. Creek sewer (cost \$850 000) in Kansas City, design of equipment and execution of work. *TT 1.3: P 1.3: RC 1.3.* March 1913 to April 1914 member of firm, Abbott & Wagner, Contrs., Kansas City, Mo., designing and building reinforced concrete bridges and erecting steel railroad bridges. *TT 1.1: P 1.1: RC 1.1: D 1.1.* April 1914 to Aug. 1915 making surveys, estimating bids and designing bridges for several contractors in Kansas City, Mo., estimates and bids prepared on structures from \$15 000 to \$1 750 000. *TT 1.3: P 1.3: RC 1.3: D 0.5.* Aug. 1915 to March 1916 Engr., and Jan. to Aug. 1917 Constr. Engr. with John P. Coughlan (7½ months) and with Campbell Bros. (7 months) constructing reinforced concrete viaduct (\$27 000), designing and building small concrete highway bridges and (after Jan. 1917) designing, estimating and constructing reinforced concrete and steel bridges and other structures. *TT 1.2: P 1.2: RC 1.2: D 0.9.* March 1916 to Jan. 1917 Engr. and Supt., Midwest Constr. Co., Kansas City, constructing a reinforced concrete viaduct (\$208 000) Kansas City, Kans., in full charge of work. *TT 0.8: P 0.8: RC 0.8.* Aug. 1917 to July 1919 1st Lieut., 337th F. A., U. S. Army, being Regimental Orientation Officer, heavy field artillery, Instructor in mathematics in division and regimental schools (1 year), in charge of surveying, mapping and computing fire control data; invented slide rule for 3-in. gun firing data and device for solving map visibility problems. *TT 1: P 1: RC 1.* July 1919 to Sept. 1926 Cons. Engr., Kansas City, Mo., surveying and making plans for federal aid roads in Kansas (212 miles), designing 62 highway bridges, designing and supervising four city paving jobs (up to \$140 000), designing 11 swimming pools, etc. *TT 7.1: P 7.1: RC 7.1: D 7.1.* Nov. 1926 to date Executive Secy., Missouri Branch, Associated Gen. Contrs. of America, Jefferson City, Mo., being Mgr. of association branch; work includes research and engineering advice for contractors. *TT 1.5: P 1.5: RC 1.5. TT 18.3: SP 1: P 17.3: RC 15.3: D 9.6.* Refers to V. H. Cochrane, E. J. Creighton, A. C. Everham, I. G. Hedrick, H. P. Treadway, N. T. Veatch, Jr., M. W. Watson, W. A. Wheeler.

1066

(10) WEBB, STAFFORD RIDDLE, Assoc. M., 308 North Spring St., Greensboro, N. C. (Elected Aug. 30, 1926.) (Age 37. Born Niagara Falls, N. Y.) 1912 B. S., Denison Univ., Granville, Ohio. June 1912 to Feb. 1915 Steel Detailer, American Bridge Co., Gary, Ind., and Pencoyd, Pa. *TT 1.4: SP 1.4.* Feb. 1915 to Feb. 1918 with City of Philadelphia, until May 1915 as Draftsman, Dept. of City Transit, designing and drafting, then Designing Draftsman, Bridge Div., Bureau of Surveys, designing fixed and movable concrete and steel bridges, and machinery for bascule. *TT 1.5: SP 1.5: D 1.8.* Feb. 1918 to Oct. 1919 Drafts-

man, Office of Public Works, Washington Navy Yard, on structural design, including foundation design. *TT 1.7: P 1.7: D 1.7.* Oct. 1919 to Aug. 1921 Asst. Bridge Engr., Missouri State Highway Dept., Jefferson City, Mo., supervising bridge design. *TT 1.8: P 1.8: RC 1.8: D 1.8.* Aug. 1921 to date Chf. Engr., Carolina Steel & Iron Co., Greensboro, N. C., supervising design of structures and preparing details for fabrication. *TT 7: P 7: RC 7: D 7.* *TT 13.4: SP 2.9: P 10.5: RC 8.8: D 11.8.* Refers to T. C. Atwood, G. M. Braune, J. Jones, H. H. Lotter, A. C. Lee, F. T. Miller, E. C. Ruebsam, H. L. Shaner, J. D. Waldrop.

1067

(15) WILLIAMS, BENJAMIN FRANKLIN, Assoc. M., Box 276, Capitol Station, Austin, Tex. (Elected July 12, 1926.) (Age 53. Born Center, Ark.) June-Dec. 1907 with Southwestern Bridge Co., Joplin, Mo., on bridge work, Dallas-Sherman Interurban, Dallas, Tex. *TT 0.3: SP 0.3.* July 1913-Jan. 1925 County Surveyor of Kaufman County, Tex.; Dist. Engr. for County Levee Improvement Districts No. 1 (Sept.-Dec. 1914), No. 4 (Jan. 1918-Jan. 1925), No. 5 (July 1919-Jan. 1925) and No. 9 (July-Dec. 1919); made topographic and hydrographic surveys for land owners on South Sabine River from Royce City to Hetty, Tex. (June-Dec. 1920) and survey on Caddo Creek and Sabine River for flood control (1921); Dist. Engr. for W. P. Newton *et al.*, levees (June 1920-Dec. 1921); County Engr. for Kaufman County on Highway No. 40, State and Federal Aid project and Highway No. 34 (July 1922 to Oct. 1923). *TT 11.6: P 11.6: RC 11.6: D 11.6.* Feb. 1925 to date State Reclamation Engr. *TT 3.3: P 3.3: RC 3.3: D 3.3.* *TT 15.2: SP 0.3: P 14.9: RC 14.9: D 14.9.* Refers to C. T. Bartlett, J. S. Fenner, J. B. Hawley, J. M. Howe, F. R. Lewis, E. L. Myers.

1068

(11) WYLIE, PAUL EUGENE, Assoc. M., 629 S. Spring St., Los Angeles, Calif. (Elected Jan. 16, 1922.) (Age 39. Born St. Louis, Mo.) 1911 B. S. in C. E., and 1917 C. E., Iowa State Coll. *TT 4: P 4.* July 1911 to Feb. 1912 Timekeeper on sewer and power-plant construction, J. W. Turner Improvement Co., Des Moines, Iowa. *TT 0.3: SP 0.3.* Feb. 1912 to Feb. 1913 Engr., Tolman Eng. Co., on surveys, concrete design and construction, being Chf. of Party on preliminary survey for 50-mile projected railway in Louisiana. *TT 1: P 1: RC 0.3: D 0.3.* Feb. to June 1913 Draftsman and later Office Engr., City Eng. Dept., Des Moines, responsible charge of design of sewer system. *TT 0.3: P 0.3: RC 0.3: D 0.3.* June 1913 to Jan. 1916 County Highway Engr., Guthrie County, Iowa, responsible charge of design and construction of roads and bridges. *TT 2.6: P 2.6: RC 2.6: D 2.6.* Jan. 1916 to July 1918 Contr. on numerous bridges and culverts and sewer system (5½ miles). *TT 2.5: P 2.5: RC 2.5.* July 1918 to Feb. 1919 with U. S. Army, Heavy (Coast) Artillery, commissioned at Ft. Monroe, Va.; Instructor in orientation (surveying and astronomy). *TT 0.6: P 0.6: RC 0.3.* Feb. to June 1919 Gen. Supt., Selden-Breck Constr. Co., on permanent government work, Ft. Sill, Okla., buildings, roads, pavements, sewers, waterworks, water filtration plant for post and City of Lawton. *TT 0.4: P 0.4: RC 0.4.* July 1919 to July 1920 with Jesse F. Stevenson & Co., handling special assessment paper purchased from contractors. July to Dec. 1920 private practice, surveys and drainage. *TT 0.5: P 0.5: RC 0.5: D 0.5.* Jan. 1921 to May 1923 Structural Engr., Proudfoot, Bird & Rawson, Archts.; also Cons. Engr. for City of Des Moines in charge of compiling new building code; structural design on numerous large buildings. *TT 2.4: P 2.4: RC 2.4: D 2.4.* June to Aug. 1923 Structural Engr., Oliver G. Bowen, design of concrete and steel-frame office and warehouse buildings. *TT 0.2: P 0.2: RC 0.2: D 0.2.* Aug. 1923 to date Contractor on banks and other commercial buildings; Cons. Engr. for financial concerns underwriting bond issues on buildings; building appraisals and condemnation proceedings. *TT 5: P 5: RC 5: D 5.* *TT 19.9: SP 0.3: P 19.6: RC 14.7: D 11.4.* Refers to O. G. Bowen, A. LeVan, R. E. Marvin, H. B. Walker, C. D. Weller.

FROM THE GRADE OF AFFILIATE

1069

(8) HAUPT, EDWARD, Affiliate, 53 West Jackson St., Chicago, Ill. (Elected Jan. 31, 1911.) (Age 59. Born Philadelphia, Pa.) Licensed Structural Engr., State of Illinois. 1886 to 1896 in Rolling Mill Dept., Phoenix Iron Co., Phoenixville, Pa., on rolling mill, shop, general office drafting, estimating, and sales department work. 1896 to 1898 with Universal Constr. Co., Chicago, first as Secy. in charge of sales and general office, and later as Pres. in general charge; 1898 to 1904 Manufacturers' Agt., Mount Vernon (Ohio) Bridge Co., Van Dorn Iron Works of Cleveland, Ohio, and others in Chicago and vicinity. May 1904 to June 1905 as member of Wm. W. Bierce, Ltd., of New Orleans, La., represented Cambria Steel Co. of Johnstown, Pa., in New Orleans and vicinity. June 1905 to date with Strobel Steel Constr. Co., Chicago, as Secy., at times in general charge of the business; since 1911 in executive charge of work

consisting of design and construction of bascule bridge work, design of falseworks and construction equipment and construction of numerous bridges and framed structures; work included design of Broadway Bridge, Portland, Ore. (bascule span only), Torrance Ave. Bridge, Cook County, Ill., and 6 or 8 bridges (bascule type) for States of Maryland and Virginia, and construction of Mississippi River Bridge at Keokuk, Iowa, Passynick Ave. Bridge at Philadelphia, Pa., Jefferson Ave. Bridge at Detroit, and Washington, Jackson, Adams St., California and Grand Ave. bridges at Chicago, etc.; at present Pres. in executive charge of operations. *TT 40: SP 2: P 38: RC 20: D 20.* Refers to T. L. Condron, C. G. Conley, J. D'Esposito, A. J. Hammond, E. S. Nethercut, C. L. Strobel, I. M. Wolverton.

FROM THE GRADE OF JUNIOR

1070

(14) **BERGENDOFF, RUBEN NATHANIAL**, Jun., 320 East Dartmouth Rd., Kansas City, Mo. (Elected Jan. 15, 1923.) (Age 29. Born Newman Grove, Nebr.) 1921 B. S. in C. E., Univ. of Pa. *TT 4: P 4.* Sept. 1921 to June 1922 Draftsman and Designer, Bridge Dept., North Carolina State Highway Dept. *TT 0.4: SP 0.4.* June 1922 to date with Harrington, Howard & Ash, Kansas City, Mo., until June 1925 as Draftsman, detailing bridges, and since then Designer of fixed and movable bridges, such as highway and railroad vertical lift bridges over Welland Canal, Mobile Bay, Elizabeth River and Duluth Harbor, rolling lift bridges over Welland Canal, simple trunnion bascules over Miami (Fla.) River, Christiana River, Wilmington, Del., Arlington Memorial Bridge over Potomac River, etc.; economic studies and design of combined highway and railroad cantilever bridge at Vicksburg, Miss., highway cantilever bridge at Natchez, Miss., and two-span continuous highway bridge at Cape Girardeau, Mo., all over Mississippi River; economic studies and estimates of all types of bridges, including long-span suspension. *TT 4.7: SP 1.5: P 3.2: RC 3.2: D 3.2.* *TT 9.1: SP 1.9: P 7.2: RC 3.2: D 3.2.* Refers to L. R. Ash, F. M. Cortelyou, C. L. Eckel, J. L. Harrington, E. E. Howard, H. G. Hunter, H. C. Tammam.

1071

(4) **COLLISSON, NORMAN HARVEY**, Jun., 334 Central Ave., Ocean City, N. J. (Elected Nov. 26, 1923.) (Age 28. Born Olney, Pa.) Sept. 1918 to June 1919 and Sept. 1921 to June 1922 student in Civ. Eng., Swarthmore Coll. *TT 1: P 1.* 1918 to date (except while student) Asst. Res. Engr. and Asst. Engr. with Wm. H. Collisson, Jr., and (since 1926) member of firm, Wm. H. Collisson, Jr. & Bro., subdividing 30 000-acre tract (Waldeck Farms), running highways, etc. (over 7 months), building three 18-hole golf courses, including roads, drainage, etc., Ocean City County Club (1 year), municipal contracts, including drainage, sanitation, asphalt paving, coast protection, bulkheads, breakwaters, etc., for Avalon, Sea Isle, Somers Point and Ocean City, asphalt paving (\$500 000) for Bridgeton, N. J.; 1924 to 1926 Asst. Engr., Ocean City Sewer & Water Co., since 1926 Designer on all private and municipal work and since 1927 Designer and Chf. Engr. on reinforced concrete boardwalks for Ocean City and Avalon Borough, N. J. *TT 8.3: SP 1.1: P 7.2: RC 7.2: D 5.6.* *TT 9.3: SP 1.1: P 8.2: RC 7.2: D 5.6.* Refers to W. R. Bule, Jr., W. H. Collisson, Jr., J. W. Hackney, L. M. Haupt, E. H. Maier, E. R. Needles, W. I. Risley, H. Robinson, F. W. Schwiers, Jr.

1072

(1) **DARDEL, WALTER**, Jun., 167 Carrol Pl., St. George, N. Y. (Elected June 6, 1927.) (Age 30. Born Aarberg, Berne, Switzerland.) 1918 C. E., Ecole Tech., Berthoud, Switzerland. *TT 4: P 4.* April to Sept. 1916 Jun. Engr. with Schafr & Mueller, Engrs. and Contrs., surveys, drafting and clerical work, construction of hydro-electric power house at Eglsan, Zurich, Switzerland. Jan. to Sept. 1920 municipal work for City of Aarberg, Berne. *TT 0.8: P 0.8: RC 0.8.* Oct. 1921 to Feb. 1922 Topographical Draftsman; Technical Advisory Corporation, New York City. City planning and zoning, preparing maps. *TT 0.4: P 0.4.* April 1922 to April 1923 Field and Office Engr., Barahona (Dominica) Sugar Co., Inc., preparing topographical surveys, maps, canal routes, cross-sections for canals, plans and designs for irrigation gates. *TT 1: P 1.* May 1923 to March 1924 Eng. Asst., Technical Advisory Corporation, New York City, on municipal research problems for grade-separation plans, estimates, sewers, street traffic plans and (under E. P. Goodrich, Cons. Engr.) investigation for deepening of James River up to Richmond, Va. *TT 0.9: P 0.9: D 0.5.* March 1924 to June 1926 Bridge Designer, Michigan State Highway Dept., Lansing, Mich., on reinforced concrete bridges, standardizing design methods, estimates. *TT 2: P 2: D 2.* June 1926 to May 1927 Structural Designer, Dwight P. Robinson & Co., Inc., New York City, on design of foundations, etc., for industrial buildings and railroad terminals, design of reinforced office building and nurses school for Rio de Janeiro, Brazil. *TT 0.5: P 0.5: D 0.5.* May 1927 to March 1928 Bridge Designer, New York Central R. R., Engr. of structures, on design and detail drawings for bridge and structural work. *TT 0.8: P 0.8: D 0.8.* March 1928 to

date Concrete Designer, F. L. Smith & Co., New York City, on design of crusher plant for cement factory. *TT 0.3: P 0.3: D 0.3. TT 10.7: RC 0.8: D 4.* Refers to V. Christian, E. P. Goodrich, R. Kaysser, C. A. Mellick, J. E. Porter, Z. H. Sikes.

1073

(1) DAVIS, HAROLD LAMBUTH, Jun., Care, United Fruit Co., Santa Marta, Colombia. (Elected Oct. 2, 1922.) (Age 27. Born Kobe, Japan.) 1922 B. S. in C. E., Univ. of Cal. *TT 4: P 4.* July to Oct. 1922 Jun. Office Engr., California Water Resources Investigation, Dept. of Eng. and Irrigation, computing hydraulic data, etc. *TT 0.1: SP 0.1.* Oct.-Nov. 1922 Rodman, Reclamation Dist. 551, Courtland, Cal. Dec. 1922 to Jan. 1923 Chairman, Southern California Edison Co. *TT 0.1: SP 0.1.* Jan. to May 1923 Transitman, Oakdale Irrigation Dist., field work for maintenance of irrigation. *TT 0.4: P 0.4.* May to June 1923 Rodman, San Joaquin Light & Power Corporation, flume and concrete canal reconstruction, field party. *TT 0.1: SP 0.1.* June to Sept. 1923 Jun. Engr., State Reclamation Board, California, special investigations, field and office, for production of farm land. *TT 0.2: P 0.2.* Sept. to Nov. 1923 Instrumentman, Merced Irrigation Dist., relocation of Yosemite Valley R. R. around Exchequer Dam. *TT 0.1: SP 0.1.* Dec. 1923-Feb. 1924 Rodman, California Highway Comm., Div. V. *TT 0.1: SP 0.1.* March 1924 to Aug. 1925 Asst. Civ. Engr., Spreckels Sugar Co., on irrigation maintenance survey work, supervising construction of small pumping plants, etc. (under general supervision). *TT 1.5: P 1.5: RC 1: D 0.1.* Aug. 1925 to Oct. 1926 Asst. Res. Engr., California Highway Comm., Div. VII, in charge of proportioning plant, acceptance of material for concrete paving (under Res. Engr.), some inspection of culvert pouring, etc. *TT 0.9: SP 0.3: P 0.6.* Oct. 1926 to date Asst. Engr., United Fruit Co., Chf. of Party on survey work, last year on experimental and research work for irrigation of bananas, distribution of water, etc., in charge (under Div. Engr.). *TT 1.4: P 1.4: RC 1.* *TT 8.8: SP 0.7: P 8.1: RC 2: D 0.1.* Refers to B. A. Etcheverry, A. N. George, S. T. Harding, R. L. Jones, W. A. Perkins.

1074

(11) DUNCAN, ARTHUR GIBSON, Jun., 549 West Dryden St., Glendale, Cal. (Elected May 19, 1924.) (Age 31. Born Los Angeles, Cal.) 1918 B. S., Mathematics and Physics, Occidental Coll. 1923 B. S. in Civ. Eng., Cal. Inst. Tech. *TT 4: P 4.* April to Sept. 1920 Rodman and Chairman, Los Angeles County Road Dept. *TT 0.2: SP 0.2.* Sept. 1920 to Sept. 1921 Rodman, Chairman and Instrumentman, Union Oil Co., Los Angeles. *TT 0.5: SP 0.5.* Oct. 1922 to Feb. 1924 with C. L. Weeks, Los Angeles, until June 1923 (while student) as Estimator, and remainder of time Estimator and Appraiser on buildings and Surveyor. *TT 0.7: P 0.7.* Feb. 1924 to Feb. 1926 Appraiser of buildings, Pacific States Appraisal Co., Feb. to Oct. 1926 Appraiser of Condemnation Awards with Bennett & Haskell, and Oct. 1926 to Oct. 1927 Appraiser and Structural Engr., Pacific States Appliance Co., and Bennett & Haskell, making measurements, designing to ascertain hidden parts, taking off quantities, preparing cost data, estimating value of all types of structures, and (1926) also on plans and estimates for alterations of buildings, design of structural members, members for earthquake resisting building, etc. *TT 3.7: P 3.7: RC 3.7: D 1.2.* Oct. 1927 to date Head, Eng. Dept., Union Appraisal Co., in charge of valuations of all types of structures and machinery including work mentioned above, estimating capacities, horse power, etc. *TT 0.7: P 0.7: RC 0.7: D 0.7.* *TT 9.8: SP 0.7: P 9.1: RC 4.4: D 1.9.* Refers to A. F. Barnard, F. J. Converse, F. B. Gridley, R. R. Martel, W. W. Michael, R. V. Orbison, F. Thomas.

1075

(10) GLENN, WILLIAM DAVID, Jun., 150 Fourth Ave., North, Nashville, Tenn. (Elected April 20, 1925.) (Age 26. Born Waterloo, S. C.) 1923 B. E. (Civ.), Vanderbilt Univ. *TT 4: P 4.* June 1923 to date Estimator, Rock City Constr. Co., Contrs. *TT 4.1: SP 1: P 3.1: RC 2.8.* *TT 8.1: SP 1: P 7.1: RC 2.8.* Refers to A. J. Dyer, M. P. Jones, W. E. Wilbur, E. B. Wilkinson, C. B. Wilson.

1076

(1) HILLIARD, ARTHUR EUGENE, Jun., 100 Post Ave., New York City. (Elected May 23, 1923.) (Age 31. Born Franklinville, N. J.) 1921 B. Sc. in Civ. Eng., Rutgers Coll. *TT 4: P 4.* April 1922 to Aug. 1923 Rodman, inspection, line and grade work on Shandaken Tunnel, on surveys, etc., and March 1924 to Dec. 1925 Inspector on Kensico Siphon and Gilboa Dam, Board of Water Supply, New York City. *TT 2.5: SP 0.7: P 1.8.* Sept. 1923 to Feb. 1924 Transitman and Computer, Office of Borough Pres. of Brooklyn, Bureau of Highways, computed damage areas for street openings. *TT 0.3: SP 0.3.* Jan. 1926 to date Jun. Engr., Board of Transportation, New York City, supervising construction of 207th St. spur (tunnel) and Isham St. station of new Washington Heights Subway. *TT 2.6: P 2.6: RC 2.* *TT 9.4: SP 1: P 8.4: RC 2.* Refers to B. J. Ahearn, J. A. Guttridge, C. G. Hoerner, Jr., G. G. Honness, L. E. Robbe, C. D. Searle, J. R. Slattery.

1077

(1) **KOLST, UFFE JUUL**, Jun., 6402 Fort Hamilton Parkway, Brooklyn, N. Y. (Elected Aug. 30, 1926.) (Age 31. Born Copenhagen, Denmark.) 1924 B. Sc. C. E., Royal Pol. Inst., Univ. of Copenhagen. *TT 4: P 4*. Autumn 1923 Draftsman, Industrielle & Miniere du Katanga, Copenhagen, topographical maps, retaining walls, layout of canal project and water power for mines in Africa. March to Aug. 1924 Detailer, Ship Radio Stations, Danish Radio Telegraph & Telephone Co. *TT 0.2: SP 0.2*. 1924 Camp Engr., Danish Scout Assoc., layout of camps for 5 000 scouts, planning water supply, sewerage, lights, telephones and supervised erection of buildings, etc. *TT 0.5: P 0.5: RC 0.5*. Sept. to Oct. 1925 Designer with A. H. Krebs, Copenhagen, on buildings for electric power plant (reinforced concrete frames, steel roof trusses). *TT 0.1: P 0.1: D 0.1*. March to Sept. 1925 and Nov. 1925 to March 1926 Designer, Dept. of Public Works, Teaneck, N. J., street planning, designing, etc. *TT 0.9: P 0.9: RC 0.4*. April to Sept 1926 Designing Draftsman, Bridge Div. State Highway Comm. of North Carolina, detailing and checking reinforced concrete highway bridges. *TT 0.5: P 0.5: D 0.3*. Sept. 1926 to May 1927 Designer, Fargo Eng. Co., Jackson, Mich., power house substructures, design of spillways, automatic gates, etc. *TT 0.7: P 0.7: RC 0.3: D 0.4*. May to Dec. 1927 Bridge Designer, Bridge Div., State Highway Dept. of New Jersey, designing, checking and estimating highway bridges (steel and concrete). *TT 0.6: P 0.6: D 0.6*. Dec. 1927 to date Bridge Designer, Long Island R. R. Co., Jamaica, N. Y., design and checking railroad and highway bridges. *TT 0.5: P 0.6: RC 0.5*. *TT 8.2: SP 0.3: P 7.9: RC 1.2: D 2*. Refers to F. Auryansen, C. S. Bissell, J. S. Bowman, R. G. England, M. Goodkind, T. Human, Jr., J. F. Sanborn.

1078

(7) **HOUSEL, WILLIAM STUART**, Jun., Room 301a, West Eng. Bldg., Ann Arbor, Mich. (Elected Feb. 25, 1924.) (Age 27. Born Boulder, Colo.) 1923 B. S. in C. E., Univ. of Mich. *TT 4: P 4*. June 1923 to Feb. 1924 with Ruhling & Holdsworth, Cons. Engrs., Detroit, Mich., as Structural Designer and Res. Engr. supervising construction. *TT 0.6: P 0.6: RC 0.3*. Feb. 1924 to date Instructor in Civ. Eng., Structural Dept., Univ. of Michigan, and (since Jan. 1928) in charge of investigation to determine bearing capacity of soil. Also June to Oct. 1924 Res. Engr. supervising construction, under Ransom & McGaughan, Civ. Engrs., Pontiac, Mich. May to Aug. 1925 with J. H. Cissel, Structural Engr., as Designer on Fuller St. Bridge, Ann Arbor, Mich. May to July 1926 with H. H. Atwell, Cons. Engr., Ann Arbor, as Structural Designer on Pittsfield-Ann Arbor Drain. June 1926 to Jan. 1927 Structural Engr., with Malcomson & Higginbotham, Archts., Detroit. Aug. 1926 to date Cons. Engr., Oakland Eng. Co., Pontiac, Mich. June 1927 to Jan. 1928 Engr. in charge of soil investigations for design of foundations for Wayne County Road Comm. Dec. 1927 to March 1928 Cons. Engr. for Mason L. Brown, Civ. Engr., on design of foundations for Ecorse Drain. Aug. to Dec. 1925 and Jan. 1928 to date with City of Ann Arbor, on Broadway Viaduct on design and preliminary estimates (1925) and Cons. Engr. on design and construction (1928). *TT 4.4: P 4.4: RC 2.2: D 1.7*. *TT 9: P 9: RC 2.5: D 1.7*. Refers to J. H. Cissel, L. M. Gram, H. E. Riggs, G. H. Ruhling, R. H. Sherlock, H. A. Shuptrine, A. L. Trout.

1079

(11) **JEWETT, JOHN QUINCY**, Jun., 1106 Hollingsworth Bldg., Los Angeles, Cal. (Elected June 7, 1926.) (Age 29. Born Clinton, Mass.) 1920 B. S. in C. E., Univ. of Colo. *TT 4: P 4*. Summer 1917 Rodman, Office Asst., Lyman Water Co., St. Johns, Ariz., reconstruction of earth dam. July 1920 to April 1921 Structural Draftsman, American Bridge Co., Gary, Ind., shop drawings for bridges, buildings, machinery, etc. *TT 0.4: SP 0.4*. Sept. 1921 to June 1923 Instructor in Civ. Eng., Univ. of Colorado; summers Instrumentman and Draftsman, Constr. Dept. of Univ., on topography, building layout and details, estimating and designing reinforced concrete on Colorado State hospital. *TT 1.8: SP 0.3: P 1.5*. July 1923 to Aug. 1926 with Cia. Const. Richardson, S. A., Esperanza, Sonora, Mexico, until Sept. 1923 as Draftsman on Yaqui Valley irrigation system (800 000 acres, 90 000 under construction), then successively Office Engr., Field Engr. and Asst. to Chf. Engr., in charge of drafting room, hydrographic studies, land subdivision, topographic surveys, and some construction and maintenance of distribution system, main and lateral canal location and design, finally in charge of layout, design and construction of extensions to canal system. *TT 3.1: SP 0.2: P 2.9: RC 2.9: D 1*. Oct. 1926 to date Designing Engr. with Quintin, Code & Hill, Cons. Engrs., Los Angeles, Cal., studies of runoff and economic development of storage on Sweetwater River, San Diego and Sta. Ynez River, Santa Barbara, Cal. for domestic water supply and irrigation; hydroelectric power; studies of runoff and economic limits of development at Elephant Butte Dam, N. Mex., Lake Pleasant on Agua Fria River, Ariz., partial study on Colorado River of Texas, hydrographic and flood studies, routing of floods, systems of reservoir control for hydro-electric power; estimates, layouts and designs on miscellaneous

structures, construction plants, structures appurtenant to dams, etc. *TT 1.8: P 1.8: RC 1.1: D 0.5. TT 11: SP 0.8: P 10.2: RC 4: D 1.5.* Refers to P. Bauman, W. H. Code, I. C. Crawford, J. N. Irving, L. C. Hill, R. A. Hill, W. C. Huntington.

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(3) **KELLER, OLIN EARL**, Jun., 90 Morton Ave., Albany, N. Y. (Elected June 7, 1926.) (Age 29. Born in Hancock County, Ohio.) 1923 B. S. C. E., Purdue Univ. *TT 4: P 4.* Feb. to Sept. 1919 Chainman, etc., Detroit, Toledo & Ironton R. R. *TT 0.3: SP 0.3.* Summer 1920 Inspector and Engr., City of Pontiac, Mich., on subdivision work. Summer 1922 Asst. Constr. Engr., some design, A. Bentley & Sons Co., Toledo, Ohio. May 1923 to Jan. 1926 with Dept. of Public Works and Bldgs., Div. of Highways, Springfield, Ill. *TT 2.6: P 2.6: RC 2: D 0.6.* Jan. 1926 to date with The Philip Carey Co., Elastite Products Div., Lockland, Cincinnati, Ohio, on promotion of engineering materials, and Field Engr. on construction and installations. *TT 2.5: P 2.5: RC 2.5. TT 9.4: SP 0.3: P 9.1: RC 4.5: D 0.6.* Refers to H. B. Brewster, W. E. DeYoung, C. V. R. Fullenwider, W. K. Hatt, H. C. Jussen, W. A. Knapp, G. D. Williams.

1081

(14) **LEFEVER, KENNETH WINANS**, Jun., 215 Gazette Bldg., Little Rock, Ark. (Elected Sept. 11, 1917.) (Age 31. Born Jackson, Miss.) Jan. to Oct. 1915 Rodman, Chainman, Inspector, etc., with Lund & Hill; Cons. Engrs., Little Rock, Ark., on drainage and municipal work. *TT 0.4: SP 0.4.* Oct. to Dec. 1915 Chainman, Missouri Pacific Ry. Co. *TT 0.1: SP 0.1.* Dec. 1915 to Feb. 1916 Rodman and Chainman with Willis E. Ayres, Memphis, Tenn., on drainage. *TT 0.1: SP 0.1.* June to Aug. 1916 Rodman with W. G. McClesky, Memphis, on drainage. *TT 0.1: SP 0.1.* Aug. 1916 to date (except Aug. 1918 to July 1919 Private, Co. A, 113th Engrs., U. S. Army) with Ford & MacCrea, Cons. Engrs., Little Rock, Ark., until Aug. 1918 as Instrumentman, Inspector, Draftsman, etc., also Res. Engr. on sewer construction, and after July 1919 Asst. Engr. acting as Res. Engr. on road and municipal improvements and (since 1924) in charge of plans and surveys, highway and municipal work. *TT 10.5: SP 1.5: P 9: RC 5: D 1. TT 11.2: SP 2.2: P 9: RC 5: D 1.* Refers to W. E. Ford, F. A. Gerig, R. C. Gibson, O. L. Hemphill, D. A. MacCrea, E. U. Stevenson.

1082

(1) **MCGRATH, WILLIAM JOHN**, Jun, 466 West 150th St., New York City. (Elected Oct. 10, 1921.) (Age 31. Born New York City.) 1919 B. S., Coll. of City of N. Y. 1921 C. E., Rens. Pol. Inst. *TT 4: P 4.* July to Oct., 1921 Civ. Engr., P. J. Carlin Constr. Co., New York City, on 3-story reinforced concrete warehouse, laying out lines for columns, giving deviations for floors, checking invoices and quantities, some cost accounting. Dec. 1921 to March 1922 Draftsman, Board of Education, Repair Div., Brooklyn, N. Y., tracing and detail drawing, field measurements. *TT 0.3: SP 0.3.* March to Oct. 1922 Draftsman with Chas. A. Duke, Archt., New York City, on design for addition to Polo Grounds, finishing and tracing structural drawings, designing and computing structural steel, reinforced concrete beams and columns. *TT 0.6: P 0.6: D 0.6.* Oct. 1922 to Jan. 1924 Clerk of the Work, National Exhibition Co., New York Giants, addition to Polo Grounds, driving wood piles, placing reinforced concrete, structural steel, roofing, stands, seats, plastering, plumbing, estimates, etc. *TT 1.3: P 1.3.* Jan. 1924 to May 1928 Asst. Engr. with Rodgers & Hagerty, Inc, New York City, until Oct. 1925 on Manhattan approaches to Holland Tunnel, on layout, checking steel, record drawings, checking plans and ordering materials, detail drawings, estimates of quantities, etc., after Oct. 1925 on similar work, Rapid Transit Subway, Route 78, Sec. 5, New York City. *TT 4.3: P 4.3: RC 3.3: D 1.6. TT 10.5: SP 0.3: P 10.2: RC 3.3: D 2.2.* Refers to F. W. Allen, A. E. Clark, A. J. Daino, J. W. Daly, J. A. Lenecek, C. J. O'Connor, G. Perrine.

1083

(1) **MARTIN, PERCIVAL ARTHUR**, Jun., 18 Mt. Prospect Pl., Newark, N. J. (Elected Jan. 17, 1921.) (Age 31. Born Newark, N. J.) Sept. 1915 to Feb. 1916 Clerk, Kraeuter & Co. Feb. to June 1916 Estimator, Manhattan Iron Works, Newark, N. J., iron and structural steel. *TT 0.2: SP 0.2.* June 1916 to Aug. 1917 Rodman with Geo. H. Gardner, Newark. *TT 0.6: SP 0.6.* Aug. 1917 to May 1918 and July 1919 to July 1920 Transitman, State Highway Dept., Newark, after July 1919 on construction, location and design. *TT 1.4: SP 0.4: P 1: RC 0.5: D 0.5.* May 1918 to July 1919 with Co. G, 29th Engrs., A. E. F., in charge of survey parties. *TT 0.8: SP 0.3: P 0.5: RC 0.5.* July 1920 to April 1922 Asst. Civ. Engr., State Tax Comm., Trenton, N. J., on assessments of railroad properties, etc., and bridge design. *TT 1.8: P 1.8: RC 1.5: D 0.3.* April 1922 to April 1924 Owner, Martin Iron Works, Newark, iron and structural steel. *TT 2: P 2: RC 2.* April 1924 to Aug. 1925 Inspector, Holland Tunnel Comm., New York City, surface inspection,

shield checking. *TT 1.4: P 1.4: RC 1.* Aug. 1925 to Feb. 1926 Asst. Supt. and Engr., United Fireproofing Co., New York City, on reinforced concrete factory. *TT 0.5: P 0.5: RC 0.5.* Feb. 1926 to date Estimator, White Constr. Co., Quantity Surveyors, New York City, office and industrial buildings. *TT 2.5: P 2.5: RC 2.5.* *TT 11.2: SP 1.5: P 9.7: RC 8.5: D 0.8.* Refers to M. Birman, E. C. Dohm, L. Focht, M. I. Killmer, H. L. King, F. Leiser, A. G. Nicolaysen, C. W. Ryan, F. W. Tooker, G. S. Young.

1084

(7) **MOYER, RALPH ALTON**, Jun., C. E. Dept., Iowa State Coll., Ames, Iowa. (Elected April 3, 1922.) (Age 31. Born Tipton, Pa.) 1920 B. S. in C. E., Lafayette Coll., Easton, Pa. 1925 M. S. in C. E., Iowa State Coll. *TT 4: P 4.* Summers 1918 and 1919 Rodman and instrument work, Philadelphia (Pa.) Elec. Co. (1918) and Ingersoll-Rand Co., Phillipsburg, N. J. (1919). June 1920 to May 1921 Rodman, instrument work, drafting, etc., Div. Engr.'s office, Pennsylvania R. R., Altoona, Pa. *TT 0.5: SP 0.5.* April to Sept. 1926 Chf. of Party, and summer 1927 in charge of location, construction and right-of-way surveys, Pennsylvania Dept. of Highways. *TT 0.4: SP 0.4.* Sept. 1921 to April 1926 Instructor, and Sept. 1926 to date Asst. Prof., Civ. Eng. Dept., Iowa State Coll. *TT 4.6: SP 2.8: P 1.8: RC 1.8.* *TT 9.5: SP 3.7: P 5.8: RC 1.8.* Refers to T. R. Agg, C. H. Buckius, R. A. Caughey, W. L. Foster, A. H. Fuller, A. Marston.

1085

(11) **NOBLE, HAROLD AKER**, Jun., 1833 Dale St., San Diego, Cal. (Elected May 19, 1924.) (Age 30. Born Kalispel, Mont.) 1920 B. S., Univ. of N. Dak. *TT 4: P 4.* Summers 1918 and 1919 Asst. Hydrographer. Oct. 1920 to June 1921 Asst. Operation Engr., and June 1921 to April 1923 Asst. Engr. in charge of field party gathering data for adjudication of water rights, etc., compiling data, making computations, etc., all for Valier (Mont.) Land & Water Co. *TT 1.7: SP 0.8: P 0.9: RC 0.9.* July to Oct. 1920 Tracer and Draftsman, Fargo Eng. Co., Jackson, Mich., tracing power-plant details. *TT 0.1: SP 0.1.* May 1923 to date with Byllesby Eng. & Management Corporation, Chicago, Ill., until Jan. 1925 as Structural Draftsman for concrete and steel on gas and steam plants, including design of steel-turbine foundations, steel towers, tanks, pipe lines, boiler settings, etc., being Squad Boss on design of steel and concrete warehouses, and since Jan. 1925 Engr., San Diego Div., Constr. Dept., 9 months on preliminary location and arrangement of circulating water tunnels, also drafting, and remainder of time on public-utility construction for San Diego Consolidated Gas & Elec. Co., in charge of Constr. Office, including material, supplies and drafting room; 1926 and 1927 work included construction (over \$3 000 000) of electric substations, utility buildings, circulating water tunnels (caisson method) and underground electrical distribution system; also installation of boilers, 15 000-kw. turbine, gas generator, gas compressors and numerous auxiliaries. *TT 4.5: SP 0.9: P 3.6: RC 3.4: D 2.8.* *TT 10.3: SP 1.8: P 8.5: RC 4.3: D 2.8.* Refers to W. M. Angas, W. M. Butts, E. F. Chandler, L. M. Klauber, C. B. Sadler, L. K. Whitcomb, Jr.

1086

(1) **QUINONES, SALVADOR**, Jun., P. O. Box 564, Rio Piedras, Porto Rico. (Elected July 12, 1926.) (Age 28. Born Fajardo, Porto Rico.) 1921 C. E., and 1926 M. C. E., Cornell Univ. *TT 4: P 4.* March to June 1921 Inspector of Public Works, design and inspection of culverts and small bridges, and July to Oct. 1921 Asst. Civ. Engr., design of bridges and general engineering work, Dept. of Interior, San Juan, Porto Rico. *TT 0.5: SP 0.2: P 0.3.* Oct. 1921 to June 1923 Asst. Prof. of Civ. Eng., Coll. of Agriculture and Mechanic Arts, Univ. of Porto Rico. *TT 1.7: P 1.7.* June 1923 to June 1924 First Asst. Engr., Office of Engr. in Chg. of Public Improvements, City of San Juan, Porto Rico, on design and construction of water supply system, five school buildings, sewerage works, etc. *TT 1: P 1: RC 1.* June 1924 to date (except Sept. 1925 to June 1926 graduate student, Cornell, Univ.), in private practice, contracting for Govt. of Porto Rico, built 12 km. of macadam roads and three reinforced concrete bridges. *TT 3.4: P 3.4: RC 3.4.* *TT 10.6: SP 0.2: P 10.4: RC 4.4.* Refers to E. Baez-Rodriguez, M. Font, F. Fortunato-Selles, R. A. Gonzalez, R. J. F. Lucchetti, A. S. Lucchetti-Otero, R. Ramirez.

1087

(14) **SAILER, ROBERT**, Jun., 2021 Ry. Exchange, St. Louis, Mo. (Elected April 18, 1927.) (Age 28. Born Rorschach, Switzerland.) 1924 C. E., Federal Inst. for Tech. Sci., Zurich, Switzerland. *TT 4: P 4.* March 1924 to Oct. 1925 Draftsman and later Estimator and Designer, Phoenix Bridge Co., Phoenixville, Pa. *TT 1.1: SP 0.4: P 0.7: D 0.7.* Oct. 1925 to Oct. 1927 Draftsman and Designer with Harrington, Howard & Ash, Cons. Engrs., Kansas City, Mo. *TT 2: SP 0.1: P 1.9: RC 1.9: D 1.9.* Oct. 1927 to May 1928 Special Bridge Designer, State Highway Dept., Jefferson City, Mo. *TT 0.6: P 0.6: RC 0.6: D 0.6.* May 1928 to date in charge of design with Sverdrup & Parcel, Cons. Engrs., St. Louis. *TT 0.3:*

P 0.3: RC 0.3: D 0.3. TT 8: SP 0.5: P 7.5: RC 2.8: D 3.5. Refers to L. R. Ash, S. Gowen, C. S. Harper, E. E. Howard, J. R. Lambert, C. W. MacCornack, J. I. Parcel, H. C. Tammen.

1088

(15) WEST, RANDOLPH COOPER, Jun., 2106 Second National Bank Bldg., Houston, Tex. (Elected Feb. 25, 1924.) (Age 30. Born Savannah, Ga.) 1920 C. E., Cornell Univ. TT 4: P 4. Oct. 1920 to Feb. 1923 with Jas. Stewart & Co., Inc., Houston, Tex., until Oct. 1921 as Cost Accountant on construction of Humble Oil Co. Bldg., then in charge of remodelling First National Bank Bldg., Feb. to April 1922 in charge of additional interior work on Humble Bldg., and after April 1922 on construction of San Jacinto Life Bldg., Beaumont, Tex., as Cost Accountant, checking and estimating extra work and (2 months) Chf. Clerk. TT 2: SP 0.3: P 1.7: RC 0.5. Feb. to July 1923 with Thos. M. Murray, Houston, on warehouse and residence construction, estimating, purchasing materials, etc. TT 0.5: P 0.5: RC 0.5. Aug. 1923 to June 1924 with Doullut & Williams Co., Inc., Houston, estimating, detailing on wharf work, etc. TT 0.9: P 0.9: RC 0.5. July 1924 to Dec. 1926 Secy.-Treas., G. C. Street Constr. Co., Houston, acting as Estimator and Purchasing Agt., etc. TT 2.5: P 2.5: RC 2.5. Jan. 1927 to date member of firm, West & Jensen, Engrs. and Contrs., Houston, general building construction. TT 1.6: P 1.6: RC 1.6. TT 11.5: SP 0.3: P 11.2: RC 5.6. Refers to L. W. Balcom, E. A. Fretz, E. G. Maclay, L. H. Schlom, M. J. Sullivan, L. C. Urquhart, J. K. Woolf.

The Board of Direction will consider the applications in this list not less than thirty days after the date of its issue.